CARVING A NEW PATH FORWARD

Advocating for transitional housing to help mitigate oppressive forces for people disproportionately affected by homelessness, including a framework for integrating transitional housing with specific water and sanitation design interventions

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ABSTRACT

Homelessness is a racial justice issue, as well as a social justice issue, and finding solutions to house the unhoused needs to be viewed through both lenses. Individuals experiencing homelessness are not one homogenous group and seeing them as such fails to recognize the intersectional nature of people living on the streets and the disproportionate rate of BIPOC individuals experiencing homelessness. Landscape Architecture has been slow to address issues around houseless populations, as homelessness is often seen as a nuisance commonly addressed through defensive design strategies rather than viewing houseless individuals as stakeholders in the urban landscape that should be included. This work helps to expand how landscape architects address these issues through design and hopes to push the field in a new direction. Transitional housing offers a newer model of housing that is gaining traction in cities throughout the country and could be more widely utilized to address homelessness. However, current models of transitional housing often exist on the fringe of cities or within parking lots, erected as emergency solutions. This work seeks solutions to help integrate transitional housing into the urban fabric and advocates for transitional housing to be more widely considered by communities and local governments to help create a more equitable response to housing the unhoused, particularly for BIPOC members of communities. A literature review and recommendations from the Center for Active Design to increase civic engagement in public spaces served as the foundation to create a framework for the integration of transitional housing into urban spaces. This research focuses on three transitional housing communities in Eugene, Oregon to provide examples of how transitional housing can be integrated into the urban fabric in a way that is multidimensional with greenspace and food production. The examples include innovative solutions to water and sanitation in the form of anaerobic waste digesters that produce methane and compost as byproducts. These systems are simple, cost effective and can be designed in a way that adds to the vibrancy of a transitional housing community.

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LIST OF KEY TERMS

Intersectionality - The idea that the overlap of an individual's social identities, such as race, gender, sexuality and class, directly relate to systemic oppression and discrimination.

POC - Person of Color.

BIPOC - Black, Indigenous, and People of Color - A somewhat more inclusive term as compared to POC. There is some controversy surrounding both POC and BIPOC, however for the purposes of this thesis, this is the term most commonly used.

Homeless - Being without a home or house.

Unhoused - Being without a house, but with an understanding that having a "home" can mean more than having a traditional physical structure.

Houseless - Used interchangeably with "unhoused".

People Experiencing Homelessness - An alternative term to "homeless" that is meant to humanize people living without a traditional physical structure. Referring to someone as "homeless" enforces stigma's against people experiencing homelessness. This is the most commonly used term in this thesis.

Sleeping Rough - Sleeping without shelter, often used when referring to someone sleeping on the streets.

Transitional Housing - An immediate step between living unhoused and obtaining permanent housing. The term is somewhat ambiguous, but in this thesis it refers to small, more or less self governed communities that often use tiny homes or Conestoga Huts to house people experiencing homelessness. See pg 32, section 2.3 for specific examples.

WHY LANDSCAPE ARCHITECTURE?

"Homelessness is a nuanced, complex ecosystem, as global and daunting as sea-level rise. Landscape architects and policy makers can address higher tides in a given place with floodable waterfronts and climate- risk-adapted building codes, but still can't prevent storm surge." – (Lerner. 2019).

When one considers solutions to combating the rising number of people experiencing homelessness in the country, it is easy to assume that it's solely a housing issue. And to some extent that's correct. If the problem is a lack of housing it is easy to assume that the answer is to provide some form of public housing. However, this perspective represents an oversimplification of a complex and nuanced issue and does not address underlying systemic reasons driving homelessness in this country. Public housing resources may not even be an option for certain members of the homeless community, particularly if those individuals have a criminal record. Design, notably landscape architecture, can play a role in making improvements for the people experiencing homelessness. Designers are able to create spaces with both psychological and physical benefits and this can be of great value for people transitioning from homelessness to permanent housing. However, it's important to note that design can't solve all the world's problems and so it takes an even deeper understanding of issues relating to homelessness to find meaningful solutions.

It is important to note that there are impacts homelessness has on communities, both real and imagined, and design can play a part in eliminating some of those impacts. An example of which being open defecation in public and private spaces. As this thesis will discuss in greater detail later, there are public health risks to open defecation that affect, not only people experiencing homelessness, but also the greater community. Designers can play a role in creating solutions to such issues, such as incorporating public restrooms in urban spaces, or creating water and sanitation resources for transitional housing in a way that is more aesthetically pleasing than a portable toilet, therefore improving the perception of that community which could aid in integrating them into the urban fabric more effectively. Through their ability to think through complex issues and engage with the public, landscape architects are particularly well adept to tackle issues in public spaces.

A growing number of people experiencing homelessness are occupying public spaces: parks, under bridges, in urban forests or under stoops on the street. Fear of people using public space in this way and the resulting encroachment on public spaces has led to the criminalizing of this behavior (Maryman 2020). Given that people experiencing homelessness have nowhere to reside, this can be characterized as the criminalization of life saving activities. Criminalizing the right to exist thrusts many people experiencing homelessness into the criminal justice system. "Layering a criminal record on top of these already formidable obstacles makes exiting from homelessness all but impossible" (Maryman 2020)

In an article published in March 2020, Brice Maryman, a Seattle based landscape architect and principle of the multidisciplinary design firm MIG, argues that landscape architects are in a unique position to advocate for the use of public space in different ways. Maryman states "landscape architects have the opportunity to help policy makers consider the spatial, infrastructural, legal, fiscal, and ethical manifestations of homelessness in American cities" (2020). Landscape architects design the built environment and often navigate the bureaucratic and political domains of urban spaces. Landscape architecture, therefore, may be the ideal profession to tackle matters relating directly to the occupation of public space.

Ironically, a design is hailed a success when it is occupied and used by the public in the field of landscape architecture. However, who those users are makes a difference and it begs the question, who exactly are designers designing for? For people experiencing homelessness, "public spaces of the city were the only places that were feasible for them to lay their heads" (Maryman 2020). While this is likely not the intended use for public

open spaces that landscape architects envisioned, this is not an uncommon use of the built environment. As designers of public space, landscape architects have an obligation to take into consideration the realized use of these spaces, where intentions are second to real world outcomes.

Landscape architects consider the psychological and physical benefits that designed spaces can have for an individual and community, particularly access to nature and gardening. This thesis dives into specific design and planning recommendations for the built environment that have a number of marked benefits. These may include increased civic engagement and ways to tangibly improve social interaction among various users which could aid in the integration of transitional housing into the urban fabric. The benefits include stronger, more positive attachment to one's community, creating space for social interaction between residents and between different generations, and increased civic engagement (Center for Active Design. 2018, Comstock et al. 2010). Access to community gardens creates the space for greater social interaction, access to healthy food and gives the appearance from passersby of a productive landscape which is correlated to greater acceptance of open spaces in neighborhoods (Center for Active Design. 2018). Gardening and access to greenspace and community gardens is one of the strongest contributing factors to improving the well-being of communities. In other words, there are design interventions that can directly benefit marginalized communities, and this is the domain of landscape architects.

More specifically, there are direct design interventions that can aid in successful integration of transitional housing communities and create spaces where healing can take place and opportunities to transition to permanent housing are possible. Transitional

housing is more than just a cluster of tiny homes or Conestoga Huts. Like all of the built environment, homes, structures, and buildings are nestled into and complimented by their surrounding landscapes. Given the, often, negative perceptions of people experiencing homelessness, this is especially important for transitional housing communities. Visuality and aesthetic qualities make a difference for how these communities are perceived and therefore received from surrounding neighborhoods. This is one area where landscape architects can bring their expertise to make a difference for transitional housing communities.

Additionally, while finding solutions to homelessness can be approached through a design lens, it's important to also take into account that this issue is incredibly nuanced and that individuals who make up the homeless population are not one homogenous group. Certain groups of people are disproportionately represented in homeless populations and each person has a story and a layered identity that plays a role in their situation. Any attempt to find meaningful solutions should take this into consideration as a "one size fits all" approach will likely leave many without a path to permanent housing.

However, as Seattle based architect and co-founder of the BLOCK Project Rex Hohlbein points out, "Architects, landscape architects, designers—we're trained to use the design process. That's problem solving" (Lerner. 2019). Designers are equipped with many of the tools to tackle large scale issues, but it must done through both a design lens and a lens that understands the intersectional nature and nuance that comes along working with people experiencing homelessness. Therefore, solutions should be flexible and adaptable to various scenarios. Graham Pruss, a formerly homeless individual and University of Washington doctoral candidate in anthropology expresses that solutions should "provide the relief space now, so we can address the systemic, long-term issues blocking them

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from affordable housing." Transitional housing offers a way to meet immediate needs for people experiencing homelessness but should be coupled with providing relief from long-term structural issues. No design will "end" homelessness as we know it, but designers are well equipped to find solutions to problems that can offer shorter-term relief while solutions for underlying structural problems are sought.

METHODOLOGY

The methodology for this thesis includes a literature review on how homelessness and race are intertwined, analysis on aesthetic qualities that can help integrate transitional housing into the urban fabric and research as to why access to water and sanitation resources are needed for people experiencing homelessness, particularly for transitional housing communities. Additionally, two design charrettes with members of Opportunity Village, a transitional housing community in Eugene, Oregon took place in fall 2019 that helped shape the design of a greywater filtration system that is included in this thesis. This thesis stems from that work and includes a set of construction drawings for the greywater filtration system. Lastly, conversations with a coordinator who works with Community Supported Shelters, an organization that is currently constructing respite shelters throughout Eugene, have helped define specific water and sanitation needs in transitional housing communities currently being implemented in Eugene. Three main typologies related to access to community gardening are proposed based primarily on findings from the Center for Active Design.

This thesis takes a look at how the intersectional identities of members of the houseless community contribute to cycles of incarceration and lead to disproportionate numbers of people experiencing homelessness among BIPOC (Black, Indigenous and People of Color) individuals. Much of the literature on homelessness lumps individuals as one homogenous group, which lacks a more nuanced understanding needed when considering solutions to homelessness. An understanding of the intersectional nature of persons experiencing homelessness, namely BIPOC individuals, gives a clearer picture of who is living without shelter and why homelessness is also a racial justice issue. This thesis argues that transitional housing offers another solution that should be considered that can create more equity among those living unhoused and help prevent cycles of incarceration

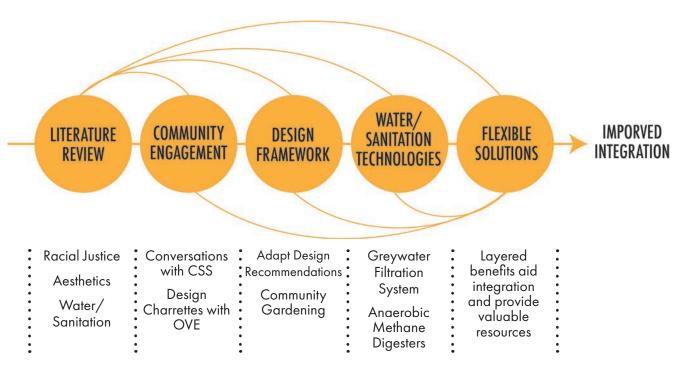
for people experiencing homelessness, especially for BIPOC individuals experiencing homelessness.

Research was conducted on aesthetic qualities that increase civic engagement among residents of both transitional housing and surrounding neighbors. The main source came from the Center for Active Design which has conducted in-depth research relating to civic engagement in public spaces. A number of different factors can help improve civic engagement from residents and create greater acceptance of spaces from surrounding users and residents. This information helped inform a series of three typologies that include access to community gardening. These three typologies were then applied to three sites within Eugene where transitional housing communities are currently present. All three sites were picked according to their potential for applying one of the three typologies.

In fall 2019, two design charrettes were held with members of Opportunity Village where people designed their own planter box models using prepared materials. They were given different design elements, such as trellises and various forms of cladding, as well as markers and pens to decorate the planters how they chose and added notes for each of their planters. Based on the work produced from these workshops, a series of prototypes for the planter boxes were created and specific designs were selected to be built. Those boxes currently have trees growing in them at Opportunity village, but are not yet filtering greywater. Lastly, the City of Eugene has agreed to purchase the trees that are growing in Opportunity Village currently and has committed to being a source for donated trees in the future that will then be purchased back upon reaching maturity.

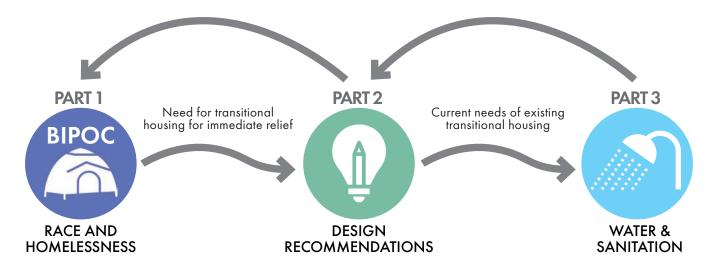
One major component to this project is the addition of innovative water and sanitation technologies that can be constructed at a low cost and that layer multiple

functions together. Existing anaerobic waste processing technology that produces compost and biogas (methane) is designed in a way that is more aesthetically pleasing, applying public art, plants and lighting. The designs of these systems are based on some of the recommendations from the Center for Active Design and from results from charrettes held with members of Opportunity village. The designs will liven up transitional housing communities by adding color, greenspace, and the ability to produce methane and compost in a system that has the potential for being self-contained, needing no outside resources except for water. In essence, these systems provide needed resources that are lacking in transitional housing, and for people experiencing homelessness broadly, and will apply aesthetic qualities that will aid in the integration of transitional housing communities into the urban fabric.



INTRODUCTION

This thesis is broken up into three main parts. Part 1 focuses on race and homelessness and why homelessness is also a racial justice issue. It outlines the disproportionate ways in which BIPOC individuals are represented and advocates for transitional housing as one tool that should be more widely utilized to combat the growing the number of people experiencing homelessness. Part 2 looks at tangible ways to improve public perception and increase civic engagement in urban open spaces. A design framework is crafted specifically for transitional housing based on recommendations form the Center for Active Design. Additionally, three typologies are presented that incorporate gardening in transitional housing communities in different ways, as gardening has a host of benefits that can aid in integrating transitional housing and improve the well-being of residents. Part 3 focuses on water and sanitation resources for people experiencing homelessness and transitional housing, as that is one major need that is not being met. Different applications of existing water and sanitation technologies could help meet some of these needs, as well as aid in the integration of these communities. It is the hope of the author of this thesis that increased integration and acceptance of transitional housing will help meet immediate needs fro people experiencing homelessness, while longer term structural changes are sought.



Disproportionate rates of homelessness

Criminalization of people experiencing homelessness/BIPOC individuals

Advocate for transitional housing as immediate solution

Design recommendations to aid integration

Different typologies meet different site scenarios

Water/sanitation resources needed

Flexible designs of water/ sanitation technologies fit different scenarios

Layered benefits



PARTI RACE AND HOMELESSNESS

CHAPTER 1 HOMELESSNESS AND INTERSECTIONAL IDENTITIES

"The United States went from funding affordable housing measures for the most vulnerable populations to providing some of those same individuals housing in jail cells."

1.1 INTRODUCTION

It is the perspective of this thesis, that one cannot discuss homelessness issues without addressing race and the intersectional nature affecting both people of color and people experiencing homelessness. Erin Goodling states that "Intersectionality refers to the ways in which systemic violence is multiplied and magnified when combined in various identity-based ways" (2020). The intersectional nature of problems affecting BIPOC (black, Indigenous and people of color) individuals is compounded by homelessness in a layered and nuanced manner. Goodling notes that "Disproportionate rates of homelessness for

Black and Indigenous people stem from ongoing legacies of settler colonialism, slavery, and racial capitalism" (2020). It is important to note that this thesis will inevitably fall short of painting the entire picture and will not dive into the entire complex history that is colonization, slavery and the neoliberal capitalist order that continues to drive inequality today. However, this thesis will strive to outline ways that BIPOC individuals' issues drive them to homelessness at disproportionate rates compared to white folks and argues that transitional housing is one avenue that could help prevent folks from sleeping rough and transition to more permanent housing.

While there are no known transitional housing communities (as this thesis defines transitional housing) specifically for BIPOC individuals, it is argued here that transitional housing models could be especially beneficial for BIPOC individuals. Rates of homelessness, incarceration and policing of homeless individuals affect BIPOC individuals at disproportioned rates compared to white people. Transitional housing offers safety, security and a way to avoid interaction with police. As a result, transitional housing could have far-reaching impacts on marginalized communities.

1.2 RACE AND HOMELESSNESS

Much of the literature on homelessness treats the houseless community as one homogenous group (Goodling 2020). However, there are notable exceptions that Goodling points to. "Notable recent exceptions include Olivet et al. (2018), who disaggregate data on unsheltered people along racial and ethnic lines..." (2020). In reality, housing and homelessness issues more often than not disproportionately affect marginalized groups compared to their white counterparts. Black persons in the United

States are grossly overrepresented in the houseless populations throughout the country. Black persons represent just 12.5% of the US population, however they represent over 40% of all houseless individuals (United States Department of Housing and Urban Development, 2014). Likewise, around 4% of Indigenous people in America experience homelessness while only making up around 1% of the US population (Goodling 2020).

This begins to unpack the intersectional nature of issues relating to homelessness and identity. Additionally, the way black persons in America have assimilated to a culture of individualism may explain the disproportionate rates of housing insecurity compared to that of Hispanic and Latino communities in the United States which tend to have tighter family ties and resources (Marcus, Anthony. 2005). However, this thesis will not delve into differences of black and Latinx individuals relating to underlying drivers of homelessness. Lastly, racial and ethnic discrimination correlate to higher levels of emotional distress and stress which may contribute to elevated mental health problems and drug abuse in black communities (Milburn at al. 2010).

Systemic racial inequity issues plaguing the black community include over policing and disproportionate rates of incarceration, which in turn are all factors that correlate to disproportionate rates of homelessness for People of Color. Racism is embedded into the very fabric of America and affects BIPOC individuals in a myriad of ways. Goodling states that, "racism in domains as varied as the labor market, housing system, criminal justice system, and mental healthcare systems exacerbates difficulties for people who are both poor and identify as Black or Native" (2020). BIPOC individuals face hardships at disproportionately higher rates than white folks and this is, broadly, a major contributing factor to disproportionately higher rates of houseless BIPOC folks.

1.3 POLICING AND HOMELESSNESS

Homelessness itself increases vulnerability to policing and incarceration. Herring, Yarbrough, & Alatorre state that one key reason for this is that services for the houseless are concentrated in inner-city neighborhoods that are historically over-policed (2019). The authors note that homelessness also increases the incentives to commit crimes based on higher levels of desperation.

A survey conducted by Herring, Yarbrough, & Alatorre found that, "90 percent of those living on the streets and parks reported being forced to move at least once in the past year, and nearly 50 percent were evicted from public spaces monthly" (2019). Additionally, 80% of those living in vehicles were forced to move regularly. These rates of police interaction, Herring, Yarbrough, & Alatorre claim, are significantly higher than that of folks living in shelters, with friends and family, or in hotels that charge daily and weekly rates. Whether it be in a tent or sleeping rough, living on the streets exposes an individual to a higher probability of being policed.

Erin Goodling adds that all houseless people are disproportionately "police-involved" and that this affects people of color more so than whites (2020). She quotes Rebecca Ellis from OPB in saying "over half of all those arrested in Portland, Oregon in 2017, for instance, were houseless at time of arrest (and over 80% of arrests of houseless people were for low level, non-violent crimes)" (2020). BIPOC individuals, non cis-gendered people, trans people, immigrants, women, the elderly and people with compromised physical or mental health struggle in everyday life in ways that able-bodied, cis, white folks do not. Folks living on the streets need to calculate their odds of survival,

considering tradeoffs for their long-term safety in ways many of us do not understand or see (Goodling 2020). Disproportionate rates of policing exacerbate problems homeless individuals face and these problems are magnified when you are also a homeless BIPOC individual.

Individuals experiencing homelessness throughout America face legislation that restricts their very existence and therefore threatens their well-being and places them at high risk for being thrust into the criminal justice system. In their study titled how the Criminalization of Poverty Perpetuates Homelessness, Herring et al state, "The National Law Center on Homelessness and Poverty (NLCHP) found that more than half of the 187 cities in its study banned camping and sitting or lying in public, and over two-thirds carried bans on loitering and begging in particular places" (2019). They illustrate how there has been an increase over the last few decades of criminalizing those lacking sufficient housing in America. They also state that "Between 2006 and 2016, bans on sitting and lying increased by 52 percent, city-wide camping bans by 69 percent, prohibitions on loitering and loafing citywide by 88 percent, and bans on living in vehicles rose 143 percent." In most municipalities in the US, it is no longer legally allowed to live in ways that deviate from social norms regarding housing, including sleeping rough, pitching tents, or existing outside without a foundation, proper water and sanitation facilities, or waste disposal resources. Erin Goodling states that there are, "few places where people without a lease or mortgage can legally exist" (2020).

Another significant trend in America over the last 45 years that directly relates to homelessness is the rise of spending on incarceration and simultaneously the decrease in spending on affordable housing. From 1975 to 2018 there has been a surge of 380,000

inmates to over 2.13 million, a 500% percent increase (Herring et al. 2019). Meanwhile, funding for public housing shrank from \$27 billion annually in 1980 to \$10 billion by the end of the decade and during this same era, corrections funding soared from \$7 billion to \$26.1 billion (Maguire, Pastore, and Flanagan 1997 cite at end). The United States went from funding affordable housing measures for the most vulnerable populations to providing some of those same individuals housing in jail cells.

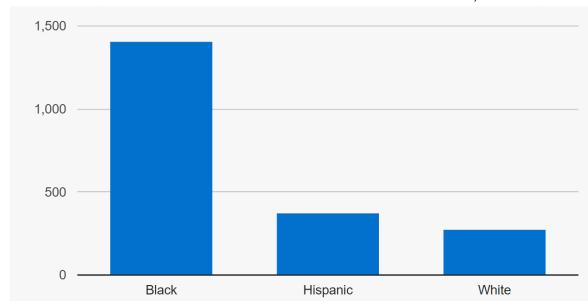


FIGURE 1.1: AVERAGE RATE OF INCARCERATION NATIONALLY PER 100,000 INDIVIDUALS

Source: United States Department of Justice. Office of Justice Programs. Bureau of Justice Statistics. National Prisoner Statistics, 1978-2014

1.4 POLICING AND PEOPLE OF COLOR

Compounded by the switch from funding public housing to funding law enforcement efforts is the disproportionate rate at which people of color are policed and incarcerated. Here one starts to unpack the intersectional nature of problems facing people of color

and those experiencing homelessness. Without this understanding, planning, policy, and design-based solutions will always be lacking in providing meaningful solutions for marginalized individuals in particular.

According to the Sentencing Project, African Americans are sentenced to state penitentiaries at 5.1 times the rate of whites (Nellis 2019). That disparity grows to over ten times the rate for African Americans in Iowa, Minnesota, New Jersey, Vermont, and Wisconsin, while again only making up for approximately 13% of the total population (Nellis 2019). In twelve different states the prison population is over half African American. The worst disparity is in Maryland, whose prison population is comprised of over 72% African American people (Nellis 2019). For Latinx individuals, the rate of imprisonment is 1.4 times the average for whites nationally (Nellis 2019). These facts and figures represent real human lives, and while it is the intention of this paper not to reduce individuals to numbers, these statistics represent an essential piece of the narrative and must be included.

Figure 1 shows the startling disparity of incarceration rates between races in the United States. BIPOC individuals face higher incarceration rates than whites across the board and face more significant structural challenges in society than whites. Furthermore, high rates of policing of homeless individuals, high rates of policing for People of Color, and disproportionate rates of homelessness for People of Color demonstrate how layered identities correlate to exacerbated problems for homeless People of Color. This contributes to disproportionate rates of homelessness and cycles of incarceration for People of Color.

Literature today only begins to address homeless populations as being more than one homogenous group of individuals, Erin Goodling's work on intersectionality and homelessness being an important exception. Goodling also points to Olivet et al.'s work,

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Supporting Partnerships for Anti-Racist Communities as also being a notable exception. She states Olivet et al., "disaggregate data on unsheltered people along racial and ethnic lines to illustrate that Black people comprise more than 40% of the US houseless population and Native people more than 4%, while accounting for just 13 and 1% of the general population, respectively" (2020).

Viewing homeless individuals as one homogenous group fails to acknowledge structural racism, not to mention racial bias from the general public and law enforcement, and it fails individuals experiencing homelessness. Additionally, the houseless community's racial demographics and their implications have not received enough attention from



policymakers (Jones, 2016). Only by attempting to understand housing and homelessness issues through an intersectional lens may we find solutions that are meaningful and worthwhile.

1.5 EMOTIONAL RESPONSE TO RACIAL AND ETHNIC DISCRIMINATION

Statistics of people experiencing homelessness vary even more when considering who is living in some type of shelter vs. those who are entirely unsheltered. Shelters include emergency shelters, transitional housing programs, or safe havens according to The 2015 Annual Homeless Assessment Report to Congress. Of the number of sheltered individuals, there are roughly equal numbers of black folks to white folks, and for unsheltered, those numbers are disproportionately white (The 2015 Annual Homeless Assessment. 2015). Why are Black individuals more likely to end up in shelters rather than living rough, as is the case for larger numbers of white folks?

One reason may lie within the disproportionate incarceration rates and felony charges for black folks, namely black men, compared to white individuals (Moser. 2016). Black men are six times more likely to be arrested and incarcerated than white men in America (Pew Research Center, 2014). In a literature review conducted by Marian Moser Jones, she concludes that four separate studies demonstrate that non-white homeless individuals are more likely to report being arrested or having a history of incarceration than their white counterparts (2015).

Additionally, the stigma of being homeless plays a critical role in the mental and physical health of individuals living unhoused, and this becomes compounded when

considering race and gender. In a study conducted on a diverse group of adults experiencing homelessness, Weisz et al. state that "individuals reporting high homelessness stigma may be those who are most often discriminated against by family members, employers, housing providers, or health care institutions, and therefore, experience the most structural barriers to good mental and physical health" (2018). Weisz et al demonstrate that structural and social stigmas contribute to pushing people into homelessness. The additional perceived stigmas regarding race and gender, then, compounds the adverse effects that the stigma of being without housing has on one's health, well-being, and physical safety. Weisz et al.'s study demonstrated that for BIPOC individuals that reported having a low to moderate racial stigma level, higher levels of psychological distress and worse physical health were experienced (2018). For individuals reporting a high level of racial stigma, an even higher level of psychological distress and negative physical health correlated regardless of homeless stigma.

Because of the compounding effects of being a BIPOC individual and being a person experiencing homelessness, these individuals are often less likely to access services that may be available for them. Weisz et al. state, "We predicted and found that People of Color with high concerns about racial stigma from service providers were most likely to avoid using services, even after we controlled for other stigma variables." Erin Goodling adds that "A lack of access to infrastructure and services during ordinary times and disasters alike exacerbates exposure to the elements and hazards for houseless people" The stigma, then, penetrates the houseless service industry making BIPOC individuals less likely to obtain things they need to improve their well-being, exposing them to more significant environmental hazards.

CHAPTER 2 SHELTERS VS TRANSITIONAL HOUSING

"So, one of the main, I mean, in my opinion, and at least one of the main benefits to this is that there's integration into the community. It's not physically, spatially separating the haves and the have nots."

- Member of respite shelter in Eugene, OR

2.1 SHELTERS

Erin Goodling states that even despite sweeps of camps being common, "many houseless people prefer the streets over shelters, given the destabilizing, often jail-like conditions of shelters" (2020). In an interview with NPR's Ari Shapiro, David Pirtle, a former homeless person and member of the Faces of Homelessness Speakers' Bureau with the National Coalition for the Homeless, discusses his experiences living in shelters. He states that there are a wide range of experiences one can have staying in shelters. When Ari Shapiro asks him if his mental illness was the reason for his avoidance of staying in a shelter he responds,

"Part of the reason was, you know, the paranoia and the fear of large groups of people that comes along with schizophrenia, but part of the reason was, and I think this is more generally the case with people, is that you hear a lot of terrible things about shelters, that shelters are dangerous places, that they're full of drugs and drug dealers, that people will steal your shoes, and there's bedbugs and body lice. And yeah, unfortunately a lot of those things are true." (Shapiro 2012).

Pirtle describes that in one shelter there were 300 men crammed inside of a building with no ventilation in Washington D.C. and that a member of that shelter died because of the heat. Pirtle states that not all shelters are bad per se, but some are essentially large warehouses where people are placed with little regard to their well-being He did have his shoes stolen from him, but three other members of that shelter offer him a pair of shoes to make up for it shortly after. Pirtle touches upon two things that are important in the discussion of shelters. One is the stigma associated with going to a shelter, and the other being the lived experiences, which likely vary from place to place, of actually residing in a shelter.

Along with shelters having the potential to be problematic, a growing number of self-organized houseless communities (Figure 2) have begun to emerge throughout the country. Erin Goodling states that "There are more self-organized houseless communities—tent cities, rest areas, tiny house villages, encampments—today than at any time since the Great Depression" (2020). She reports a 1342% increase in the number of unique, self-organized encampments between 2007 and 2017. The increase in encampments appears to correlate with the 2008 recession, with two-thirds of the growth occurring after 2012 (2020). In this way, they accommodate the needs and preferences of the

FIGURE 2.1: AN EXAMPLE OF SELF-GOVERNED TENT ENCAMPMENT IN OAKLAND, CA



Source: https://invisiblepeople.tv/city-sanctioned-homeless-camp/

houseless individuals and accommodate the neoliberal state's needs (Goodling 2020). Self-governed communities also offer people the opportunity to escape being so visible in society and feel more human and have been noted to reduce crime in surrounding neighborhoods (Goodling 2020).

When interviewed during a course on housing and homelessness at the University of Oregon in spring 2020, members of a small emergency respite shelter shed some light on the nature of transitional housing and how they have benefited from this model of housing. In this specific community, platforms with easy-up style tarps and tents were given to members of the houseless community during the outbreak of COVID-19. One resident stated, "So they're really small camps, which is really nice because you can get to know your neighbors and we are like a little community." That same member went on to state,

"I mean, I've been on the streets before and I've been beat up by people every time I've left my camp. People were stealing everything I own. I can't hardly walk now and I'm having a hard time moving my camps and getting water getting through anything. I can't walk and I'm just having a hard time of it. So this is perfect."

These emergency respite shelters, which share some similarities to small transitional housing communities and self-governed tent communities that Erin Goodling refers to above, give members of the houseless community a chance to get off the streets while planning their next move. It affords them greater security, both for their personal safety and of their belongings. Rather than being shuffled around by police or being threatened by other members of the houseless community, these small self-governed, sanctioned respite shelters offer a designated place with access to resources that allow for the opportunity

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for people experiencing homelessness to transition to permanent housing and escape cycles of incarceration. The same can be said for transitional housing communities.

When speaking about the benefits of the small number of people living in the camp, one member interviewed from the respite shelter expressed their avoidance of traditional shelter models of housing. They stated,

"Smaller numbers is better to deal with, you know, and so, living in a smaller camp with 10 people at most is like, perfect, like this should be happening everywhere. Literally, better than the shelters were. There's drug usage. There's alcohol usage."

Like David Pirtle, this individual expressed that they avoided those spaces because of poor direct experiences in shelters. This avoidance means shunning desperately needed resources and being more likely to live on the streets. As discussed earlier in the thesis, this can lead to greater risks of police encounters and being thrust into cycles of incarceration. For all of these reasons, transitioning to permanent housing becomes increasingly difficult, and disproportionately so for marginalized communities.

One individual interviewed that helps manage these emergency respite shelters with a local non-profit organization stated,

"You know, we're not consolidating people experiencing poverty into one area, which you're seeing some of those effects in areas like highway 99 and the Whitaker neighborhood, certain parts of the Whitaker neighborhood as well, where somebody basically decided this is where poverty gets to exist, and nowhere else. So, one of the main, I mean, in my opinion, and at least one of the main benefits to this is that there's integration into the community. It's not physically, spatially

separating the haves and the have nots."

Integration into the community becomes paramount to transitioning to permanent housing. "Not separating the haves and have nots" is a way of saying that these people belong here, they have dignity, they have rights and ultimately they have the right to exist in society and should be afforded the opportunity to transition to permanent housing again. Transitional housing becomes a position of empathy and a position of resistance to structural reasons driving homelessness and poverty.

2.2 TRANSITIONAL HOUSING

Transitional housing offers an alternative model to shelters while sharing some similarities to tent cities. In the context of this paper, transitional housing is something akin to a tiny home village. Examples include Opportunity Village in Eugene, Oregon (Figure 3) or Portland's Dignity Village (Figure X). Length of stays in these types of transitional housing communities are temporary and land tenure is often insecure. They offer individuals an immediate step from living on the streets or in their vehicles with the hope that they can transition to permanent housing given enough time. At the very least, they offer residents a place to breathe, a place to reduce their visibility to the general public for some amount of time, whether short or long term, similarly to self-governed camps as described by Erin Goodling. They can also secure their belongings and use hygiene facilities. It offers them safety, a place to sleep and recharge, something sleeping rough makes very challenging.

Additionally, transitional housing could offer an alternative specifically for unhoused individuals with felony convictions as they are often barred from accessing

FIGURE 2.2: OPPORTUNITY VILLAGE OF EUGENE, OREGON



Source: https://www.squareonevillages.org/opportunity

public housing. Herring, Yarbrough, & Alatorre state, "On the one hand, scholars have shown how incarceration produces homelessness. This occurs both directly through policies excluding people with a criminal record from private and public housing" (Herring, Yarbrough, & Alatorre 2019). Moreover, given the disproportionate incarceration rates and homelessness for BIPOC individuals, it is safe to assume that those individuals are disproportionately turned away from accessing resources to help them acquire permanent housing. Transitional housing, then offers the potential for an equitable option to combating homelessness. Obviously, it is but one option, and the best option is providing permanent housing for individuals experiencing homelessness. However, public policy combined with high incarceration rates are failing the most vulnerable individuals, which means failing people experiencing homelessness and BIPOC individuals disproportionately.

2.3 SPECIFIC EXAMPLES

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While there are no case studies of transitional housing communities using models similar to that of Opportunity village specifically for BIPOC individuals, there are examples of transitional housing communities that are gaining popularity that may provide the resources that would be beneficial for everyone, BIPOC individuals included. Given BIPOC individuals disproportionate rates of homelessness, their potential for being policed and incarcerated at higher rates and the varied and often unsettling conditions of traditional shelters, transitional housing offers a different model of housing that can play a critical role. Opportunity Village Eugene, the Nightingale Rest Stop, Safe Spot Communities (all in Eugene, Oregon) and the Kenton Women's Village in Portland all offer various models of transitional housing that one can glean different lessons from.

"Transitional housing is conceptualized as an intermediate step between emergency crisis shelter and permanent housing. It is more long-term, service-intensive and private than emergency shelters, yet remains time-limited to stays of three months to three years. It is meant to provide a safe, supportive environment where residents can overcome trauma, begin to address the issues that led to homelessness or kept them homeless, and begin to rebuild their support network" (as quoted from The Homeless Hub).

Opportunity Village Eugene - Eugene, Oregon

Opportunity Village Eugene (OVE) is located 3 miles from the Eugene city center on a site that is owned on by the city, was founded in 2013 and is still in operation today. The site was given to Square One Villages, the overseeing organization of Opportunity Village and other "village" models of housing communities, through a conditional use permit. The village cost \$100,000 to construct and was built and funded using volunteers and donations. It costs an individual only \$30 per month to live at Opportunity Village.

Opportunity Village houses around 30 people and requires that individuals go through an application process to get in. The homes on site are in the form of tiny homes and Conestoga Huts, a small structure resembling an old covered wagon with a canvas top. All the structures offer residents a place to escape the elements and secure their belongings. The site is located on the fringe of Eugene in heavy industrial zoning and surrounded by various industries which begs the question of whether residents are subjected to contaminated soil and air.

The residents have shared bathroom and kitchen facilities and have water and sanitation services available. Each dwelling unit is around 60-80sf, just enough space for

a small bed and some storage of residents' belongings. The village is open to woman, men and couples. No drugs or alcohol is allowed and villagers are expected to participate in meetings and keep the space clean.

In a study conducted by the University of Oregon's Community Planning Workshop in 2015, "Residents indicated that staying at OVE helps them feel secure, safe in their neighborhood, and independent" (Providing for the Unhoused 2015). The study notes that OVE helps provide a space where regular interaction occurs among community members. Residents of OVE say that the overall structure of OVE helps them transition to permanent housing, however there are still structural barriers to finding permanent, secure housing (Providing for the Unhoused 2015). "Survey results show that nearly 90% of neighboring residents and businesses were supportive of the OVE program" (Providing for the Unhoused 2015). However, given that the site in which OVE is located is in the midst of various industrial buildings and not in a residential zone, it is questionable whether the OVE model would have the same positive results and perception from "surrounding residents" as might be the case if they were situated within residential neighborhoods or a more central urban site.

Community Supported Shelters (CSS) – Eugene, OR

Rest Stops are a response to the growing number of people experiencing homelessness in Eugene. They allow up to 20 people, ages 18 and older, to have a place to go at night and provide shelter in the form of tens or Conestoga Huts. Community Supported Shelters (CSS) is a growing non-profit organization in Eugene, OR that is building Rest Stops throughout the town. The City of Eugene and Lane County provide the land and CSS funds the construction of each site. CSS' mission is to create opportunities for

FIGURE 2.3 - CSS SAFE SPOT COMMUNITY



Source: Photo taken by author

community development and build safe and functional shelters for people experiencing homelessness (https://communitysupportedshelters.org/). Their focus is on building small Conestoga Hut shelters that the organization claim "are pleasing to the eye, create caring and collaborative communities, and provide extensive support that empowers clients to stabilize and rebuild their lives" (https://communitysupportedshelters.org/). However, one might argue that the Conestoga Hut, which references Oregon's colonial past, may not really be appropriate, considering how white supremacy is embedded into Oregon's colonial history. That is a discussion for a different thesis, however.

CSS' shelters, or Safe Spot Communities (SSC's) as CSS refers to them, provide a city sanctioned space for people experiencing homelessness to help them transition to permanent housing. There are currently 3 occupied SSC's throughout Eugene, but 2 more communities are under construction and are awaiting new residents which, when occupied, will bring the total number to 90 people. Two of the three SSC's focus on a different demographic of the houseless population, one for people with disabilities, a veteran's site, and the third for a mixed population. Stays can be as long as 10 months.

CSS prefers to keep the communities small in numbers. According to them this helps with being able to enforce some basic guidelines more easily. Some of the rules include no drugs or alcohol, no violence or threats of violence, mandatory volunteering within the community, and attending regularly meetings and work parties. Interestingly, participants are required to leave the site between 10am and 4pm except for gate-keeper volunteers who stay on site to provide some security throughout the day.

Each site has some basic infrastructure included. This include secure fencing, Conestoga Huts or raised tens platforms with durable covers, a common space with a wood fired stove, a common kitchen area with a propane cooking stove and running water, raised compacted gravel pathways, trash services and garden beds. Each site also requires the use of porta-potties as there is no sewer services on site.

After subsequent conversations with Annie Herz, CSS's Development Director, it is clear that one of the largest needs at each site is water and sanitation resources. There are no showers on site and water has to be trucked in and greywater stored on site and trucked out each week. There is a local organization in Eugene that provides showers for people experiencing homelessness in a trailer and they come by each community so folks can have a hot shower, how often is unclear. Specifically, there is interest from being able to process greywater on site, which would prevent the need for it to be trucked out and bring the overall annual operating costs down. Annie stated each site costs around \$100,000 which includes initial construction of basic infrastructure and operating costs for one year. She stated that the City of Eugene has been very receptive of the CSS model and both the City of Eugene and Lane County are partners.

Nightingale Hosted Shelters (NHS) – Eugene, OR

Similar to CSS, Nightingale Hosted Shelters (NHS) hosts a rest stop in Eugene, Oregon. But unlike CSS and Opportunity Village, NHS is located in a church parking lot. There is a lack of some of basic infrastructure that Opportunity Village and CSS are able to provide, such as raised pathways and 4 sided fencing at CSS or running water and access to the city sewer at Opportunity Village. NHS provides Conestoga Huts on site, as well as trash and recycling services and portable toilets, and has a maximum number of 20 residents at once. The goal of NHS is "to offer people a transitional place to be and recover from the trauma of the street as they work their way to more traditional housing"

FIGURE 2.4 - NIGHTINGALE HOSTED SHELTER

Source: Photo taken by author

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(https://nightingaleshelters.org/?page_id=551).

According to NHS, part of their management philosophy emphasizes self-governance, which bears similarity to the governing structure of Opportunity Village. They claim this contributes to a greater sense of autonomy, responsibility and dignity. Camp rules are strictly enforced and residents are required to attend camp meetings and participate in cleanup and gate duty. NHS has on site managers and a steering committee that have experience in social services, advocacy for vulnerable populations, counseling and mediation (https://nightingaleshelters.org/?page_id=551).

NHS is unique in that they have had to break camp and move around every six months on average since 2014. They state that this has taught them how to efficiently break down and erect camps in a timely fashion. Their current location is in the Good Samaritan Church Parking lot in Eugene. On site they have a shared kitchen area and lots of plants in pots around each Conestoga Hut. Like Community Supported Shelters, there is no running water or showers on site, so resources need to be brought in and waste needs to be taken out.

Kenton Women's Village - Portland, Oregon

The Kenton Woman's Village was created through various partnerships which include local government, non-profits and various educational institutions. "Kenton Women's Village is a creative and collaborative project, offering a new approach for addressing homelessness at a small scale. "The villagers are empowered, have a sense of purpose, and take daily steps toward permanent housing" (Kenton Woman's Village). The village is made up of 20 different sleeping pods (Figure X), which are around 8 by 12 feet, and were built in 2016. The village was constructed by houseless individuals, a coalition





Source: https://www.catholiccharitiesoregon.org/services/housing-services/kenton-womens-village/faq/

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of architects, and housing advocates through a coalition called the Partners on Dwelling (POD) initiative. Since its inception the city has spent somewhere around \$350,000 on the village (Harbarger 2019).

The village includes shared kitchen and shower facilities that were built using customized shipping containers. The site requires water to be delivered and has garbage services available. The women have a community garden that allows for interaction between residents and also neighbors. Through the organization Catholic Charities of Oregon, formerly houseless woman get access to legal and financial services, case management, employment assistance, and mental and physical health care services to help guide them towards permanent housing. 23 women have moved into permanent supportive housing, 15 have started jobs and 23 women have started volunteering in their community. The Kenton Woman's Village model helps formerly homeless woman integrate into society and allows them the opportunity to give back to their local community, offering them purpose and connection. Like OVE, the women have a secure place to reside and keep their belongings, have community, and have their basic human needs met. It also empowers the women in ways that may be difficult or unavailable while living unhoused.

2.4 DISCUSSION

The Kenton Women's Village represents how transitional housing can accommodate the needs of marginalized groups of people within the houseless community, in this case women. CSS's communities for veterans and people with disabilities are similar models demonstrating an acknowledgment that specific aspects of one's identity contribute to a unique set of circumstance while living unhoused. For BIPOC individuals experiencing homelessness, their unique circumstances regarding disproportionate rates of policing

and incarceration give reason to consider that a uniques set of circumstance may benefit them as well.

However, this thesis is not advocating for BIPOC only transitional housing communities. This is not something that can ethically be proposed without engagement with specific members of the houseless community. What this thesis is advocating for is an acknowledgment of the unique set of circumstances that BIPOC individuals experiencing homelessness find themselves as compared to white folks and an acknowledgment into the structural reasons that drive disproportionate numbers of BIPOC individuals to homelessness. Transitional housing offers a unique solution that should be adopted in addition to existing solutions, such as traditional shelters and increasing access to public housing. Transitional housing offers immediate relief while solutions to underlying structural problems are sought.

There may be potential to craft a community and culture of specific transitional housing communities that may serve specific populations better than others, as seen with the Kenton Women's Village. However, this should only be undertaken after engagement with the target community has taken place and a transitional housing community that meets the needs of specific populations should be crafted with the populations they claim to serve. Importantly, these solutions should increase agency and empower those they are serving. Planning and design have a long history of perpetuating racist practices and policies that have led to the segregation of cities and the displacement of BIPOC individuals through large infrastructure projects in urban areas. It is up to the planners and designers of today to break away from historical practices that have perpetuated inequality in urban areas and craft unique solutions that bring the voices of marginalized communities to the table to craft solutions. Without which, solutions will fall short and have

to potential to cause even greater harm or trauma.

2.5 CONCLUSION

What all of these examples have in common is that they provide opportunities for residents to first and foremost have their basic needs met. They have secure places to call home in a way that cannot be achieved from sleeping rough or pitching a tent where they are subject to police interaction and risk being thrust into the criminal justice system. The villages are also relatively cheap to construct in comparison to shelters and affordable housing units. One of the major drawbacks is the small number of people these communities house. OVE only houses around 30 people and the Kenton Women's Village only around 20 women. However, these small villages are pilots for what could act as one model for the unhoused community and one can imagine similar communities dispersed throughout cities and neighborhoods. In fact, one the women interviewed during the spring 2020 course at the University of Oregon noted, "Folks experiencing homelessness at a given time, which would mean 150 to 170 small 10 person camps with the size of Eugene as a city that's totally feasible. It's absolutely feasible." If the communities housed 20 people each that would bring the number to around 75-85 transitional housing communities to house every person in Eugene. While it isn't likely that transitional housing will actually house every person experiencing homelessness in Eugene, it is feasible to expand the number of transitional housing communities in Eugene and start helping people transition to permanent housing.

Transitional housing is not going to "solve" the crises of unaffordable housing and fix the structural problems facing the unhoused or BIPOC individuals. It does, however, offer

a window into a model that could be expanded throughout various cities in the nation, especially cities in the west coast where the unhoused populations continue to grow at alarming rates as housing becomes even more unaffordable. The COVID-19 pandemic has notably exacerbated housing inequality and we have yet to see the truly devastating effects the global recession is going to bring. Additionally, during a pandemic such as with COVID-19, placing individuals in tight living quarters such as traditional shelter could help the transmission of the disease throughout unhoused communities. Transitional housing would mean more space and smaller numbers to help stop the spread of COVID-19, or any other illness.

As for police interaction and cycles of incarceration, increasing transitional housing would make it possible to dramatically reduce police interaction of unhoused BIPOC individuals, as well as offer the opportunity for more stability and the resources to transition to permanent housing. This is the main argument for their usefulness in the context of BIPOC individuals and any other marginalized group of people risking housing insecurity and incarceration. Tiny home villages and transitional housing can be seen as "radical" given their bottom-up approaches. This bottom-up approach is necessary given the lack of support from politicians and planners alike. This means a more democratic and grassroots solution to housing the unhoused is necessary.

Arguably, one of the most important aspects to transitional housing is its ability to provide residents with agency. Agency means being able to make your own life decisions and create a culture and community that is personal to those living there. Transitional housing, given its bottom approach and often self-organized structure, provides something that typical shelters do not. As illustrated above, many people experiencing homelessness

are averse to going to shelters where their personal agency is limited and the overcrowded atmosphere can create unsafe, or at least unappealing, living situations.

People experiencing homelessness, again, are not one homogenous group of people and traditional shelters create a one size fits all approach to providing immediate relief to living on the streets. It is not to say that traditional shelters should be eliminated. However, given many individuals' aversion to using shelters, more solutions are needed, and transitional housing offers one more approach and one that provides people with greater agency to live their lives. Providing agency is also a way of saying you deserve respect; you deserve to live with dignity, and you deserve the opportunity to transition out of your situation and into something more stable. It is a radical shift away from criminalizing homelessness and placing huge numbers of people in overcrowded shelters to crafting spaces for opportunity. Transitional housing, then, can be seen as a radical paradigm shift away from decades of oppressive structures that aim to shuffle people experiencing homelessness out of the public gaze.



PART 2 AESTHETIC QUALITIES TO IMPROVE INTEGRATION

CHAPTER 3

Aesthetic Qualities that Aid Transitional Housing Integration

"A study in Baltimore found that neighborhoods with a higher density of tree canopy also have higher levels of social capital—meaning neighbors are more close-knit and more likely to trust each other"

- Center for Active Design

3.1 INTRODUCTION

There are specific aesthetic qualities that have the potential to improve civic engagement and resident's perception of their neighborhoods and open spaces and this has potential to aid in the integration of transitional housing into the urban fabric. A study conducted over a span of 4 years and published in 2016 by the Center for Active Design, a non-profit organization that uses design to nurture healthy and engaged communities, outlines a number of different ways in which this can be done. The Assembly Civic Engagement Survey (ACES) is a "pioneering effort to understand how place-based design informs a range of civic engagement outcomes." The Center for Active Design claims that

ACES makes 2 major contributions. First, "it illuminates the ways in which neighborhood design is connected to civic attitudes and behavior" and second "it uses experiments to better measure the impact of specific design interventions on civic perceptions."

Another study conducted by the Center of Active Design in 2018 that is incredibly comprehensive is the Assembly: Civic Design Guidelines, which will be referred to as the Assembly Guidelines in this paper. The Assembly Guidelines are "a groundbreaking playbook for creating well-designed and well-maintained public spaces as a force for building trust and healing divisions in local communities....This work is the result of over four years of research with input from 200+ studies, 50+ cities, and dozens of expert advisors" (Center for Active Design. 2018). Like ACES, the Assembly Guidelines assess civic trust and appreciation, participation in public life, stewardship in the public realm, and informed local voting, but takes a more multidisciplinary look and provides even more guidance on designing the built environment.

The findings of the work conducted by the Center for Active Design are targeted towards open spaces broadly in an urban built environment. The goal of this paper is to adopt many of the findings and design recommendations prided and apply them to transitional housing communities, something that has not been done in this way before. First, this paper will outline each of the findings from the Center for Active Design that are applicable to placing transitional housing in vacant lots in cities. Then, it will adapt design recommendations given from the Center for Active Design to fit the needs of transitional housing residents and surrounding communities. By doing so it is the perspective of this thesis that there is potential to transform negative perceptions of surrounding residents towards the unhoused and design transitional housing communities in a way that will benefit the residents in tangible ways. While the design recommendations provided by

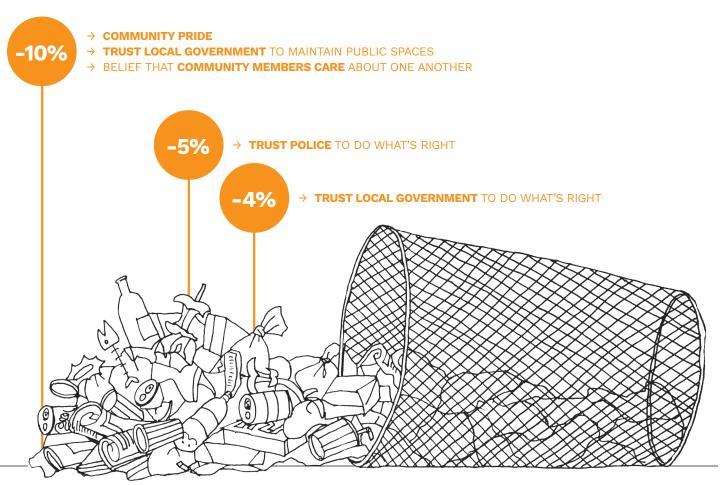
ACES is not enough alone, it serves as a strong launching point to guide the design and implementation of a series of small scale transitional housing communities throughout urban areas. This will be the basis for a new framework for integrating transitional housing within the urban fabric.

3.2 FINDINGS FROM THE CENTER FOR ACTIVE DESIGN

Litter and Disorder

Neighborhood order and disorder have strong correlations to neighborhood perceptions and civic engagement. ACES found litter to be the "single aspect of disorder most compromising to civic life" (2016). In their survey, 21% of respondents reported that liter was very common in their neighborhood and 58% said that it was at least somewhat common (2016). Those who reported that liter was very common demonstrated decreased civic trust on a number of measures including trust in local government (4% decrease), trust in police (5% decrease) and trust in local government and a belief that community members care (10% decrease) (2016). Lack of proper trash and recycling disposal pose challenges to people experiencing homelessness, increasing the amount of trash and debris around homeless encampments. This leads to negative perceptions of the unhoused due to the visual effect of having increased trash and litter in and around their encampments or on streets. Visuality and its relation to public perception and civic engagement provides an opportunity. If litter is reduced and more services are available to the unhoused to properly dispose of waste, then there is potential to transform negative perceptions and improve civic engagement.

FIGURE 3.1: LITTER, DISORDER AND CIVIC ENGAGEMENT



Source: The Assembly Civic Engagement Survey

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Vacant Lots

Another interesting correlation drawn from ACES is the relationship of vacant lots to civic engagement and public perception. "ACES respondents without any vacant lots near their homes report 5% higher civic trust, compared to respondents who have a vacant lot on their block" (2016). Improvements made to existing vacant lots that are unmaintained have an even more dramatic effect to civic engagement and perceptions. In a study conducted with an image of a lot that is marginally maintained compared to an image of a lot that is well maintained there was a 31% increase in the perception that one cared about their community (24% to 55%), a 19% increase in trust in police (21% to 40%) and a 13% increase trust in the government to "do the right thing" (16% to 29%) (2016). Even moderate improvements to vacant lots can have a strong effect on local civic engagement and improved public perception of their neighborhood and government.

Given that every city in the United States has varying amounts of vacant lots and open space, these spaces can serve as spaces of opportunity to engage with the local community and improve civic engagement and public perception, rather than hinder it. If transitional housing communities are placed within vacant lots and transform a dilapidated space into a productive one, there is potential to have compounding benefits for both the residents of the transitional housing community and surrounding neighborhood residents' perception of unmaintained open space and the relationship to civic engagement.

FIGURE 3.2: VACANT LOTS AND CIVIC ENGAGEMENT



Source: The Assembly Civic Engagement Survey

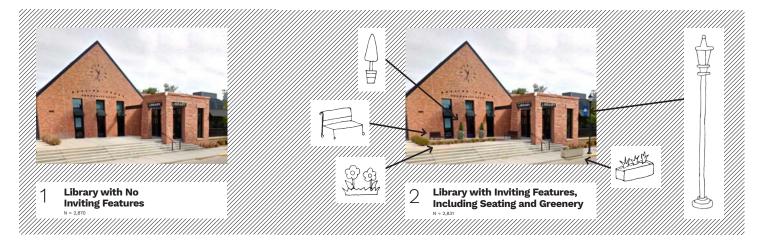
Incorporating and Improving Greenspace

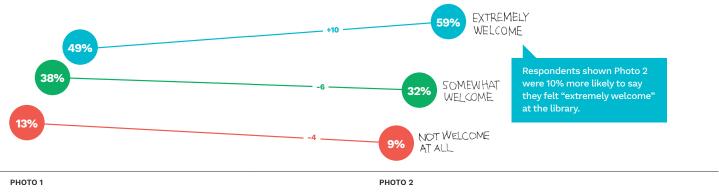
Another strong correlation to civic engagement and public perception is the incorporation of nature into public space. According to the Assembly Guidelines, "a study in Baltimore found that neighborhoods with a higher density of tree canopy also have higher levels of social capital—meaning neighbors are more close-knit and more likely to trust each other" (2018). Trees and greenery not only help beautify public open space, but they make them more enticing for social activities, relaxation and opportunities or education (Center for Active Design. (2018). In addition, well maintained greenery is associated with an increase in civic trust by 8% and stewardship by 6% (The Assembly Civic Engagement Survey. 2016).

Greenery is also associated with an increased feeling of being welcome to a space or community. When shown a picture of a library with little to no vegetation as compared to the same building with more vegetation and seating added, respondents were 10% more likely to say they felt "extremely welcome" (The Assembly Civic Engagement Survey. 2016). Of course, there are associations people have with libraries themselves being spaces that are often welcoming to the public, spaces where events are held and are associated with democratic values. This may play a part into the findings of this study. It is unclear whether this association would be as strong for other types of public buildings as it is with a library. However, it is clear that added greenspace does increase a person's sense of belonging and feeling that they are welcome to engage with that space.

FIGURE 3.3: GREENSPACE AND EFFECTS ON CIVIC ENGAGEMENT

"How welcome would you feel attending an event in the library?"





Source: The Assembly Civic Engagement Survey

Positive Messaging and Signage

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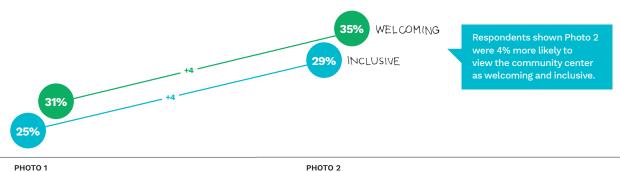
Another way to foster feelings of inclusion is through messaging and signage. Respondents shown a picture of a photo of the front door of a community center with little to no messaging and a picture of the same door with a bilingual welcoming sign and inviting questions listed were 4% more likely to view the community center as "welcoming and inclusive" (The Assembly Civic Engagement Survey. 2016). Additionally, something as a simple as adding an information board can bolster civic trust (Center for Active Design. 2018). Similarly, having a community garden within a neighborhood can increase civic trust, even if only marginally maintained (Center for Active Design. 2018).

FIGURE 3.4: WELCOMING SIGNAGE AND EFFECTS ON INCLUSIVITY

"How welcoming is this community center?"

"Do you feel this community center is inclusive?





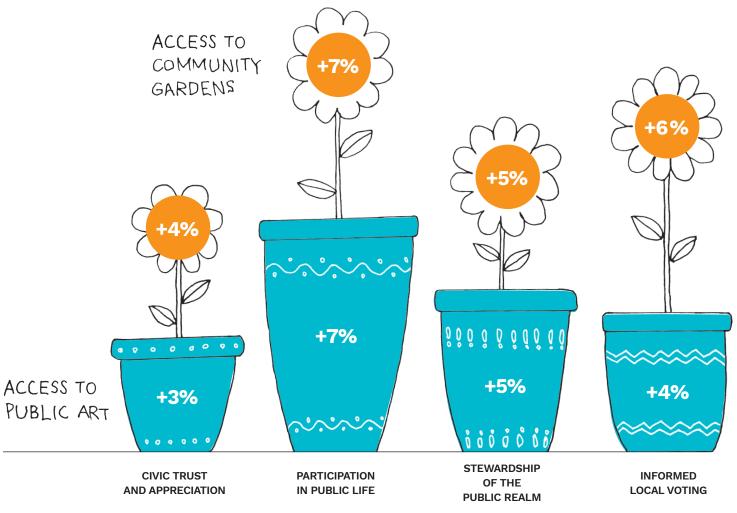
Source: The Assembly Civic Engagement Survey

Community Gardens

Community gardens have a wealth of benefits that they can bring to a community. "Community gardeners are more likely to know and trust their neighbors" (Center for Active Design. 2018). Community gardeners also demonstrate a stronger attachment to their local communities compared to non-gardeners (Center for Active Design. 2018). For transitional housing residents this could mean being included in their local community in a way that may not have been possible as when living unhoused. Community gardens have the ability to serve as a meeting place, a place for interaction among gardeners, as well as the local community. As mentioned above, the Kenton Women's Village has done just that.

"Gardens also serve as a space for intergenerational and intercultural engagement" (Center for Active Design. 2018). They can be places where people with different cultural backgrounds are able to grow their native foods, share their culture and interact with the larger community. Gardens can be places where events and meetings are held and can act as a center piece for neighborhoods and community interaction. Community gardens have also been attributed to helping encourage the maintenance and upkeep of surrounding neighborhoods and increase feelings of attachment. "A study conducted in Flint, Michigan found that residential yards near community gardens were better maintained than those near vacant lots" (Center for Active Design. 2018).

FIGURE 3.5: ACCESS TO PUBLIC ART, COMMUNITY GARDENS CIVIC ENGAGEMENT



Source: The Assembly Civic Engagement Survey

Additionally, during the interview with the respite shelter mentioned above in Eugene OR, a resident stated that they were trying to incorporate gardening in a small scale in the respite shelter. They stated, "...I feel like part of the camp host's job also is improving your camp. So, I started a little garden and made the library. So just like things like that. That make it more homey and normal. Not like you're living in a FEMA camp or something, you know, [Laughter]" There is direct interest in gardening and an acknowledgment from people living in small respite shelters that gardening and adding greenspace can improve the lives of residents. The resident directly makes the connection that greenspace and gardens differentiate the respite shelter form an emergency FEMA camp. This demonstrates the inherent benefits gardening has on a community. That resident likely hadn't researched the psychological benefits of gardening, however, there was an intuitive understanding that gardening and increased greenspace are beneficial.

Having community gardens within neighborhoods, specifically within a 10 min walking distance, can bolster civic engagement and create positive communal attachments to neighborhoods and one's home (Center for Active Design. 2018). Through their exploration into neighborhood conditions, collective efficacy and gardening as it relates to neighborhood attachment, Comstock et al found that "By implementing neighborhood level interventions that connect longer-term residents with newcomers, it is possible that relationships can develop between these two groups, thereby promoting feelings of neighborhood attachment." Community gardens, then, act as a facilitator of interactions between older generations of residents who are well established in the neighborhood and newcomers. Community gardens have the ability to increase interaction among different generations of residents, as well as people with diverse backgrounds.

In a similar vein, incorporating nature and greenspace in neighborhoods, broadly, can bolster attachment and interaction. "A study in Baltimore found that neighborhoods with a higher density of tree canopy also have higher levels of social capital—meaning neighbors are more close-knit and more likely to trust each other" (Center for Active Design. 2018). Natural areas such as waterfronts, parklands and trail systems have always been sources for community pride. (Center for Active Design. 2018).

3.3 DISCUSSION

For transitional housing communities, community gardens could be a key aspect of successful integration into neighborhoods. What would it mean for transitional housing communities to be within close proximity to a community garden? One could speculate that this would mean greater interaction with the surrounding community, a place for self and cultural expression and a place where communities could come together for local events. It could be a way for older generations and residents who have been in a neighborhood for a long time to interact with newcomers, residents of newly implemented transitional housing communities.

Additionally, residents who have stronger attachment to their communities have shown to be more vigilant against guarding the neighborhood against crime. By increasing neighborhood attachment and improving civic engagement there is potential to make communities safer. If greater attachment can be achieved from transitional housing communities and the surrounding community alike there could be a compounding effect of lowering crime rates (or at the very least, improving perception of crime). Similarly, perceptions of the unhoused could be transformed from folks who contribute to increased levels of crime to people that aid in the protection of a community. Having folks live in tidy

transitional housing communities as opposed to sleeping rough and lacking proper trash and recycling disposal could also transform the visuality of homelessness. You have less people living on the streets and you provide the unhoused with a dignified, safe way to transition to more permanent housing.

CHAPTER 4

Design Recommendations For Transitional Housing

"A study in Baltimore found that neighborhoods with a higher density of tree canopy also have higher levels of social capital—meaning neighbors are more close-knit and more likely to trust each other"

- Center for Active Design

4.1 DESIGN FRAMEWORK

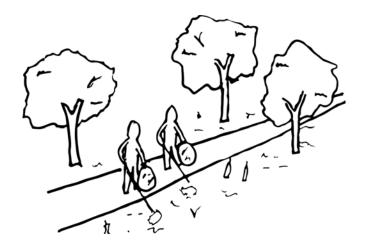
How do findings from the Center for Active Design's numerous studies on improving public space and increasing levels of civic engagement correlate to transitional housing? Can the Center of Active Design's recommendations be applied to transitional housing? The next section of this paper will address ways in which lessons gleaned from the Center for Active Design can be directly applied in creative ways that could aid in the integration of transitional housing communities more effectively into the urban fabric. Negative

perceptions of the unhoused can be transformed over time to something more positive and resources that are desperately needed by the unhoused can be provided to improve the quality of life for residents and help them transition to permanent housing. There is no reason why anyone would be without proper access to protection shelter, water, sanitation, food security, safety, dignity, community, access to greenspace and be able to access valuable resources in their community.

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LITTER AND CLUTTER

Given the ways in which litter can have a strong effect on perceptions of order and disorder, this is a key area that needs to be addressed. Litter, as noted above, is often a common occurrence in neighborhoods and correlates to depleted civic engagement and trust. The houseless community also, given their lack of sanitation services and access to waste disposal, are seen as contributing to the creation of more litter and trash. Given these parameters, these design recommendations can be applied to transitional house communities and their integration into neighborhoods.



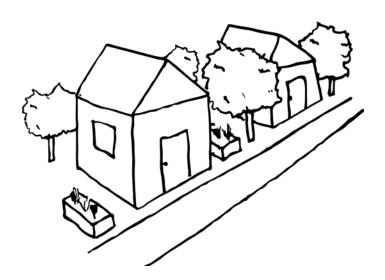
Planning and Design

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- Include trash and recycling receptacles at every transitional housing community with regular pick up times
- Ensure every transitional housing community is kept tidy
- Identify vacant lots within neighborhoods to implement transitional housing
- Transitional housing residents can act as stewards of neighborhood open spaces
 - o Employ by city to keep neighborhoods/open spaces free of trash and debris
- Hold regular meetings with neighborhood associations to identify areas that need to be improved and hire transitional housing residents to perform work
 - o Help individuals transition into permanent housing faster with income
 - o Give sense of purpose
 - o Shows neighbors they are active participants in their communities

INCORPORATE NATURE INTO TRANSITIONAL HOUSING

In addition to community gardening, access to nature, broadly, has proven benefits to health and increased civic engagement and participation. There are noted benefits to having access to greenspace that include improvements to mental health and wellbeing. By incorporating nature into the design of transitional housing, you are making the statement that these individuals are as deserving of access to nature as anyone else. It is also a cost effect, simple way to make your home more enjoyable. Additionally, and as noted above, incorporating greenspace in a way that is visible to passersby and the surrounding community creates greater civic engagement and appreciation. It creates a more welcoming atmosphere, especially when compared to an empty vacant lot that is unmaintained.



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Planning and Design

- Weave greenery throughout transitional housing communities
- Positive if transitional housing site location is adjacent to trees/greenspace
- Hire residents of transitional housing community to plant more street trees in neighborhoods where greenspace may be lacking
 - o Create partnerships with local organizations doing this work already For example: Friends of Trees in Eugene, OR or the City of Eugene itself
- Use native plants in transitional housing communities to create sense of place and ecological resilience
- Grow plants in transitional housing sites that can be sold certain times of year to residents
 - o THC engaging with local community, turning profit, and offering service
 - o Small scale "nursery" provides greenspace for residents/beautifies vacant lots
 - o Can be grown in container based water/sanitation technology
 - Current projects underway at Opportunity Village plan to do this

CREATE UNIQUE COMMUNITY IDENTITY

To encourage participation among residents as well as surrounding neighborhoods, each transitional housing community should have its own unique identity. This can be done by incorporating public art and encouraging residents to participate in beatification efforts of the site and surrounding areas. In addition, including signage that gives information about the transitional housing community can help give each community a unique identify by crafting its own unique narrative. This can be an effective tool for educating the public on why a transitional housing community is taking over a vacant lot in their neighborhood and in this way be an important educational piece as well. Communication and transparency are going to be effective tools that help bring the general public up to speed as to what this community is and why it is here.



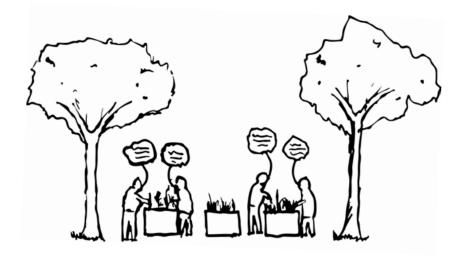


Planning and Design

- Invite members of community to participate in adding public art to transitional housing community
- Use public art to help brand each transitional housing community
 - o Murals
 - o Street art
 - o Installations
- Create partnerships with local artists, schools and community groups that are willing to participate in adding public art
- Incorporate signage
 - o Bilingual signs, especially for communities with residents where English is not native language
 - o Information board
 - o Welcome sign painted by local artist/residents
- Include a "front porch" to every transitional housing community that will be welcoming and encourage interaction
 - o Include seating along "front porch"
- Design each transitional housing community so that it has a mix of public/semipublic and private spaces
 - o This might include a mix of hard and soft edges like fencing and/or plants when appropriate

COMMUNITY GARDENING

Another key to incorporating more transitional housing into the urban fabric is inevitably going to be gardening and access to community gardens. Community gardens are meeting places for the community. They are places where conversations can be held and interaction with folks can occur that may not happen otherwise. In a world that is increasingly digital, where screens isolate us from the outside world, the garden is the place where people can get their hands dirty and where moments of inspiration and connection occur. "People who have a community garden within a 10-minute walk of their home are more likely to report elevated measures of participation in public life (7%) and informed local voting (6%)" (Center for Active Design. 2018).



Planning and Design

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- Create small networks of THC within 10 min walking distance of community garden
- Identify vacant lots for transitional housing within a 10 min walking distance of existing community garden
- Identify vacant lots and parks within 10 min walking distance of transitional housing communities where community gardens can be located.
- If unable to implement transitional housing within 10 minute walking distance of community garden, consider having small community garden within transitional housing community
 - o This should be visible to passersby and surrounding residents given the social benefits from having community gardens in one's neighborhood
- Use community garden as meeting place for events
 - o Annual/biannual/quarterly meeting for each transitional housing community where neighbors can attend
- Use community garden as way for people of diverse backgrounds to express their culture through food and events

CHAPTER 4

Community Garden Typologies for Transitional Housing

"Community gardens act as a facilitator of interactions between older generations of residents who are well established in the neighborhood and newcomers. Community gardens have the ability to increase interaction among different generations of residents, as well as people with diverse backgrounds."

4.1 INTRODUCTION

Gardening and access to greenspace is something that has been expressed from members of transitional housing communities, as outlined earlier in this thesis from members of a respite center, as well as from conversations with Annie Herz of Community Supported Shelters. Currently, some level of gardening is common at transitional housing communities in one way or another, whether it be small planters outside of a Conestoga Hut or access to a public community garden. Given these expressed needs and the documented benefits of having access to community gardens, three typologies are presented in relation to access to community gardens for transitional housing members.

Each one of the typologies represents a real transitional housing community within Eugene. The first is Opportunity Village Eugene, the second is a Safe Spot Community by Community Supported Shelters and the third is a Nightingale Supported Shelter. The sites for each typology were chosen because of, either their current application of one of the typologies, or because the site would fit one of the typologies well because of their location and spatial structure. A one size fits all approach would not meet the diverse array of scenarios in which transitional housing exists. These typologies give a glimpse of how incorporating community gardening in these communities can aid in their integration into the larger community. Additionally, they could provide some therapeutic benefits, give a greater sense of purpose to residents, and increase food security. Community gardens are places where folks of all backgrounds can interact with one another and work towards a common goal.

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4.2 TYPOLOGIES

TYPOLOGY A - Community Garden on Site - Opportunity Village Eugene

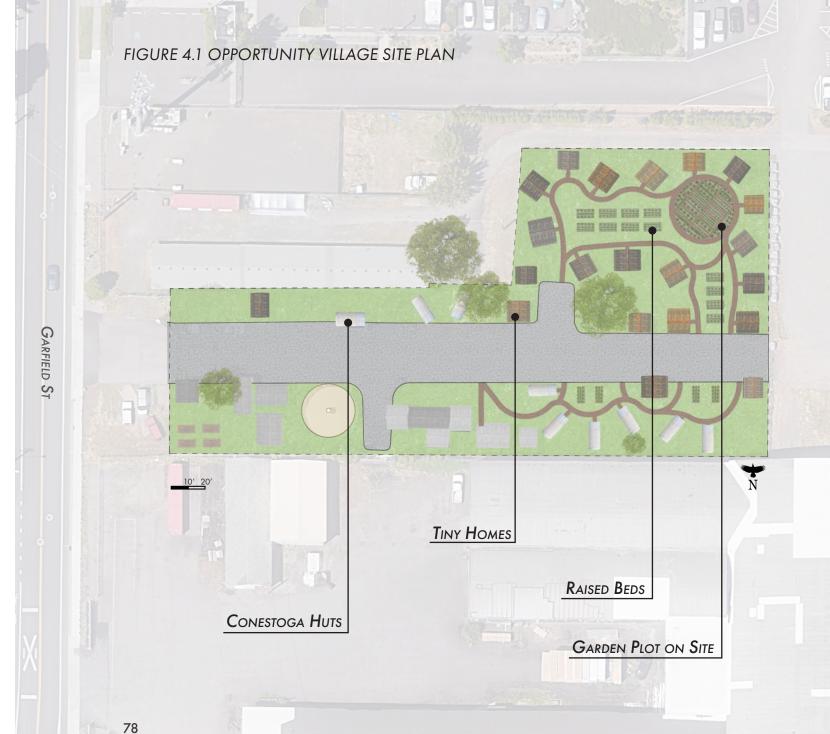
The first typology showcases what a community garden on site of a transitional housing community would look like. This is an existing site plan of Opportunity Village (OVE) with a circular community garden plot, as well as 26 raised bed plots throughout the village, added. The OVE site is large enough to accommodate having a garden on site and is located in an industrial area of Eugene, therefore having a large public community garden would be unlikely. However, because of it's relatively large size, having a garden on site would be feasible. One thing this typology assumes is that the soil on site is suitable for having an in ground garden space. If this is not feasible, then raised bed planters would work, but would inevitably come at a higher cost to the community.

PROS

- Adds layer of self sufficiency
- Medium sized site needed
- This is already taking place at various scales in transitional housing communities currently
- Smaller overall site than public community garden concept
- Members of transitional housing communities expressed wishes to have gardening on site
- Smaller garden on site = easier maintenance and access

CONS

- Does not facilitate interaction among larger community
- Smaller gardens = less food
- Neighbors may be less inclined to participate in activities/meetings without being held in public space
- Requires adequate soil conditions or raised beds on site which comes with higher initial costs
- Requires extra space which may be limited for some sites



TYPOLOGY B - Community Garden Adjacent to Site - Safe Spot Community - Eugene, OR

The second typology is one of the Community Supported Shelter's Safe Spot Communities, located directly adjacent to Skinner City Farm, a community garden in Eugene. With this typology, residents are able to work in the community garden alongside local residents in the larger community fostering greater interaction. There is also ample room for expanding the garden on site and residents of the Safe Spot Community could play an integral part. Space for events, garden parties and general interaction with their fellow neighbors would be possible, while also greatly increasing food security.

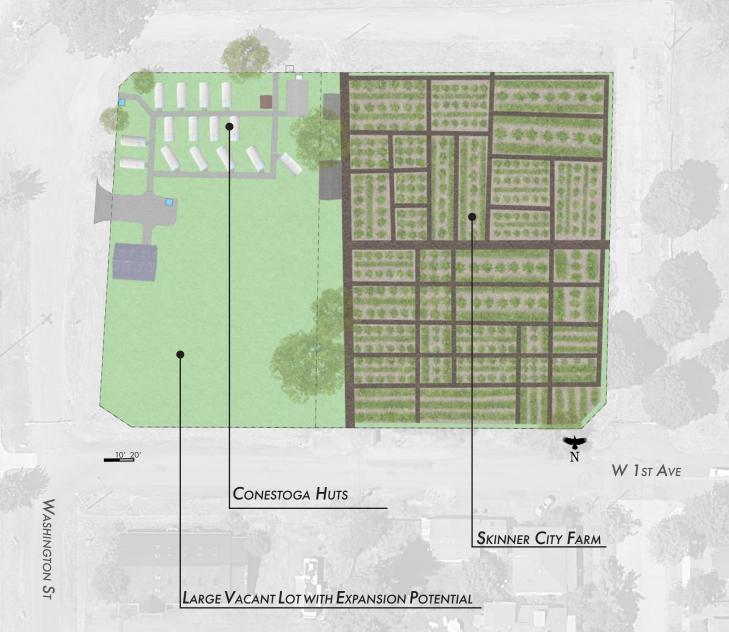
PROS

- Increases self-sufficiency
- Micro transitional housing communities could be placed within vicinity similar to typology C
- Facilitates greater interaction among surrounding community members
- Residents can act as caretakers to garden which makes their commitment to their community visible
- Potential to transform vacant lots into something green and productive
- Transforms the visual narrative of "drain" on society to contributing to society

CONS

- Larger site needed which may be difficult to acquire
- Larger garden/site means increases management and maintenance of site
- Unlikely that a public community garden will be implemented with every new transitional housing community
- Community gardens are often full of patrons already.
- Realistically needs existing community garden with extra space available

FIGURE 4.2 SAFE SPOT COMMUNITY SITE PLAN



TYPOLOGY B - Network of Transitional Housing and Community Gardens - Nightingale Supported Shelter - Eugene, OR

The third typology is a Nightingale Hosted Shelter in the Good Samaritan Church parking lot in Eugene, Oregon. This typology consists of having a community garden, ideally within a ten minute walking distance, as referenced as being ideal from the Center of Active Design. As show on Figure 4.3, there are many vacant lots within close proximity to the Amazon Community Garden and directly adjacent to the garden is a large empty lot with potential for an expanded garden. Also, the lot directly adjacent to the garden would be more than enough space for a transitional housing community and could actually be a place to apply the 2nd typology of placing transitional housing directly adjacent to a community garden. In which case one can image a sort of hybrib between typologies two and three with a network complimenting the second typology.

PROS

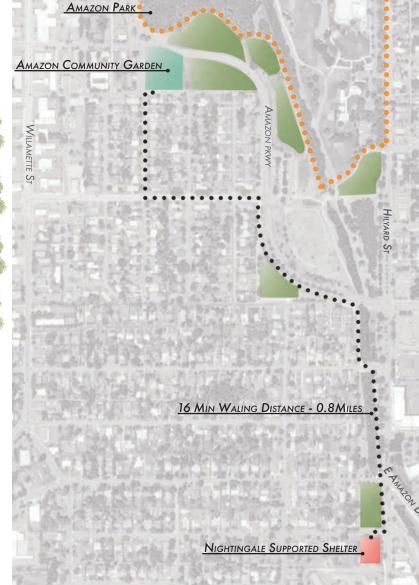
- Small transitional housing sites easier to implement
- Garden acts as center for interactive community hub and event space
- Residents could act as caretakers of garden
- Uses existing community gardens
- Space in existing community gardens may be limited, however some community gardens do have space to expand and residents could play integral part in expansion

CONS

- Requires finding sites within close proximity to garden
- May require the need to acquire or lease private land
- Does not directly add greenspace or food production to transitional housing community, which in this case is in a parking lot
- Existing community gardens may be at capacity already
- Requires transportation to and from garden which may be difficult for some

FIGURE 4.3 NIGHTINGALE SITE PLAN





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Existing Community Garden

Vacant Lots for Transitional Housing or Community Garden Expansion

• • • • Route to Community Garden

• • Park Boundary

4.3 CONCLUSION

Each on of these typologies demonstrates how community gardening could be incorporated into existing transitional housing models. The important thing to take away from this typological study is that there is no one size fits all scenario where community gardening works in conjunction with transitional housing. However, the benefits of incorporating gardening for residents of transitional housing is not to be understated. As demonstrated from the Center from Active Design there are a host of benefits that come with community gardening and gardens could be spaces that encourage integration of transitional housing into the urban fabric. Gardens can be spaces that foster interaction and acceptance from surrounding neighbors and give residents a sense of purpose and belonging to their community. People experiencing homelessness are often seen as being "outside" of society, of communities. However, they are members of the larger community and through active participation in community gardens, residents have a chance to feel as though they are part of the community once again and demonstrate so to the larger community.



PARTS WATER AND SANITATION

CHAPTER 5

WATER AND SANITATION

"To actually achieve universal access to adequate water and sanitation facilities in the United States and elsewhere, the United States needs to recognize that the needs of its "invisible" population have yet to be met."

5.1 WATER AND SANITATION ISSUES

Access to water and sanitation resources is a basic human right recognized by the United States, as well as most developed nations (Frye et al. 2019). However, the goal to provide everyone with access to water and sanitation resources for people experiencing homelessness in the United States has not been met (Frye et al. 2019). Access to proper water and sanitation resources has important implications for disease management and prevention, especially for unhoused populations. A lack of such resources has led to disease outbreaks in recent years and, given the declaration of these resources as a basic human right, should have been avoided. Additionally, water and sanitation access in the

United States has been reported as almost universal, however this fails to account for people experiencing homelessness (Capone et al. 2020). Open defecation is one of the major contributing factors to disease spread among individuals experiencing homeless and has contributed to outbreaks of disease.

"Recent outbreaks of infectious disease associated with poor sanitation among people experiencing homelessness in high-income countries indicate that OD (open defecation) and overuse of limited facilities available to homeless people are risks to public health everywhere" (Frye et al. 2019). From 2017 to 2018, the United States had an outbreak of Hepatitis A Virus that is believed to have been caused by open defecation and a lack of water and sanitation resources for people experiencing homelessness (Frye et al. 2019). Nearly 600 people were infected in San Diego, over 400 of which were hospitalized, and 20 people lost their lives. (Frye et al. 2019). The outbreak then spread to other states including Arizona, Utah and Kentucky (Frye et al. 2019). It is believed that the transient nature of those experiencing homelessness contributed to the spread from San Diego elsewhere (Frye et al. 2019). The CDC contributes a lack of adequate sanitation facilities and resources for people experiencing homelessness as major factors influencing the outbreak (Frye et al. 2019). "UN Special Rapporteurs to water, sanitation, and housing have repeatedly compared the squalid living conditions for people experiencing homelessness in the United States to some of the worst settlements in low-income countries" (Capone et al. 2020). Clearly, water and sanitation are a major concern for the houseless community and the repercussions from a lack of resources have far reaching effects that stretch beyond those living unhoused.

Capone et al state in their study conducted between 2017-2018 on open defecation

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sites in Atlanta, Georgia that open defecation often takes place within a close proximity to shelters and soup kitchens (2018). This may imply that those facilities are not meeting the sanitation resource demand needed to control open defecation and therefore fail to provide enough resources for the houseless community. "For persons experiencing homelessness, limited access to sanitation facilities and resource constraints at existing facilities may present challenges to maintaining dignity, privacy, health, and these basic human needs are among the reasons sanitation has been declared a human right" (Capone et al, 2018).

Interestingly, access to water and sanitation is reported as almost universal in the United States (Capone et al. 2020). However, the needs for the houseless community have yet to be met substantially. "For residents experiencing homelessness and residents in substandard housing, we found that at least 630,000 are without sustained access to a flush toilet and a further 300 000 rely on shared sanitation" (Capone et al. 2020). Capone et al demonstrate that while water and sanitation access is declared universal in the United States, in reality there are around 930,000 people that lack basic resources, even in a wealthy, western nation that has available resources (2020). To actually achieve universal access to adequate water and sanitation facilities in the United States and elsewhere, the United States needs to recognize that the needs of its "invisible" population have yet to be met (Capone 2018).

Capone et al. state that affordable and adequate housing is likely the best option to curb open defecation and provide people with an adequate and dignified form of water and sanitation access (2020). Transitional housing offers people experiencing homelessness just that. Emerging models of transitional housing also offer something that

traditional housing does not, the ability to implement water and sanitation technology in an innovative, interesting, and low cost way. Similar to how many African Nations skipped the telephone landline boom and moved straight to cell phones, transitional housing could offer a more efficient, low waste and low cost alternative to modern day plumbing through innovative water and sanitation technologies. Is it possible to do so, however, in a way that is also aesthetically pleasing and does that really matter?

One example from Portland, OR might support the claim that yes, it does in fact matter. In April 2020, the city of Portland began placing portable toilets and hand washing stations around the city to help support the houseless community and the basic needs for water and sanitation resources during the beginning of the COVID-19 pandemic. By September there were 123 porta-potties and sinks throughout the city (Oregonian 2020). There have been reports of angry community members damaging, or fully destroying, and steeling portable toilets. "Sinks and toilet paper dispensers have been stolen; units have been spray-painted, burned and tipped on their sides; and objects have been thrown in toilets, making them unusable" (Oregonian 2020). 30 units had been declared a "total loss" (Oregonian 2020). One of the employees of the company providing the units was forced to change her work and personal phone numbers due to incessant, angry calls from local residents (Oregonian 2020). Clearly, this has been a contentious issue for local residents, but also for the houseless community who still lack basic water and sanitation services. Not only has this issue been contentious, it is also expensive costing around \$75,000 per month to operate.

A letter from a concerned resident to Portland city officials states,

"We and our neighbors are concerned that these toilets will entice campers into

our vulnerable middle class neighborhoods," the letter said. "These toilets do not belong in residential areas. It is an open secret that homeless camps tend to attract criminal activity" (Oregonian 2020).

FIGURE 5.1 PUBLIC PORTABLE TOILET IN PORTLAND, OR



Source: https://www.oregonlive.com/portland/2020/12/portable-toilets-in-southeast-portland-stolen-vandalized-in-escalating-fight-between-city-and-neighbors.html

A coordinator of the program, Lindsay Stone, responded saying,

"Access to water and appropriate toilet options are recognized by the UN General Assembly as a human right....Almost 90% of the complaints our program has received regarding these units are related to stigma connected to the homeless population and complaints about things that 'could happen,' but have not happened" (Oregonian 2020).

Stone went on to state that data complied on the units does not support the claims the concerned citizen made in their letter. Most calls to the police regarding the placement of the portable toilets and sinks have been from housed individuals who were unhappy with their placement.

Something interesting about the push back to placing public restrooms and toilets for the houseless is that there are specific examples of portable toilets being used publicly that don't receive pushback and that is on construction sites. Even in residential areas, when long term construction projects are underway, it is legally required for restrooms to be placed on site for workers. We see this in residential as well as commercial spaces and push back is limited or not at all present. This begs the question of what it is that creates a resistance to sanitation resources for people experiencing homelessness.

It may very well be that a job site is a visual display of productivity, an improvement to pubic and private spaces and the perception that people experiencing homelessness are a "drain" on resources for society. While merely speculative, the contrast to the visual narrative of a situation that is deemed "productive" compared to one that is deemed a "drain" may give some insight on to why it is people push back to public restrooms for people experiencing homeless. However, the recommendations from the Center for Active

Design are almost purely visual. The transformation of a vacant lot (drain) to a community garden (productive) has a direct relationship to how those spaces are perceived and that shift in perception has the power to inspire greater civic engagement, pride, and ownership to one's neighborhood and community (Center for Active Design. 2018).

5.2 CONCLUSION

Transitional housing offers an opportunity to avoid or reduce contention between unhoused and housed residents. Not only would we need far less portable toilets and sinks in residential areas if there were more transitional housing communities, but if these communities are designed and implemented well and with attention to specific details that aid in their integration, then there might be less push back from the larger surrounding community. Additionally, if more water and sanitation resources were provided for people experiencing homelessness, then there may be a reduction in open defecation in urban spaces, which stands to reduce the risk of spreading disease. Therefore, increasing transitional housing in urban spaces stands to benefit both the residents of those communities, but also the larger surrounding communities.

The next chapter will showcase two different design interventions that would provide water and sanitation technologies in innovative ways. By layering water and sanitation resources with public art and vegetation, there is potential to meet a number of the design recommendations mentioned earlier in this thesis and provide much needed resources for transitional housing communities.

CHAPTER 6

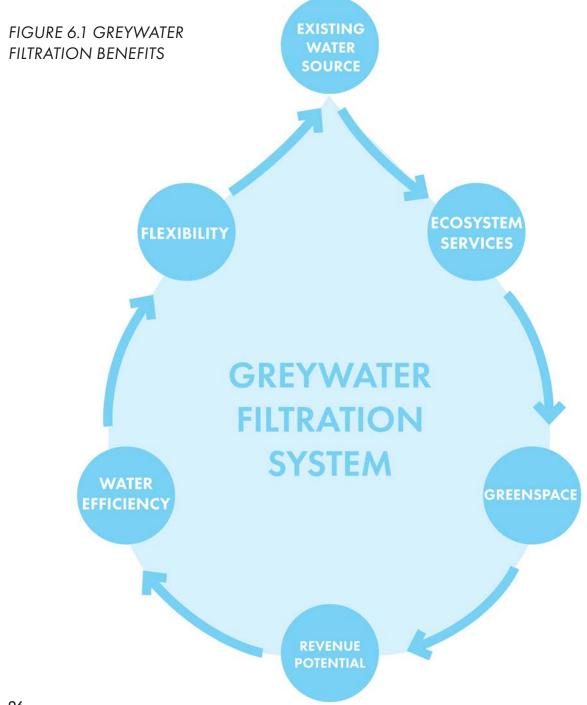
Flexible Design Interventions

"A study in Baltimore found that neighborhoods with a higher density of tree canopy also have higher levels of social capital-meaning neighbors are more close-knit and more likely to trust each other"

- Center for Active Design

6.1 GREYWATER FILTRATION SYSTEM

For Opportunity Village, I am working on designing and building flow through planter boxes that will filter grey water from sinks, showers and laundry services before it enters back into the sewer system. These units are built from partially recycled materials and were designed with input from the community. A series of three large planter boxes will be used to filter greywater and grow plants that have numerous benefits for residents.



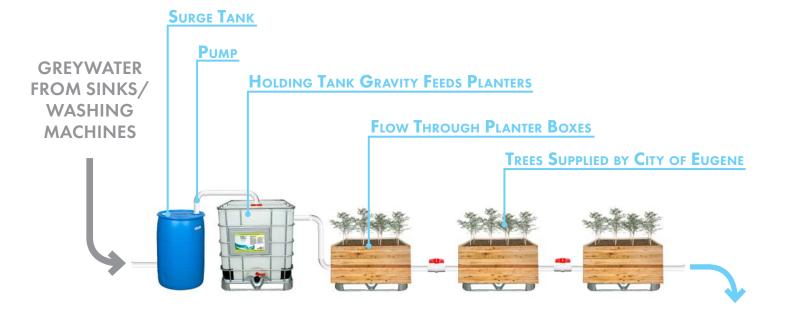
First, they will add much needed greenspace to a community that is placed within heavy industrial zoning. The site is largely barren of plants and greenspace, so this addition will help add some natural beauty on site. Next, pollutants in greywater will be measured before it enters he planters and as it exits so that we can determine how much particulate matter and pollutants are actually being filtered through the planters. Third, trees grown in the planters will be able to be sold back to the city of Eugene for a profit for the community. These types of innovative technologies could be employed at every transitional housing community for a low cost and could add greenspace and interest to dilapidated lots and transitional housing communities. This would be contingent, of course, on their upkeep and continual use and maintenance.

Continual participation from residents will be necessary for the success of the project. Not only is their input on the aesthetic qualities of the boxes important, but so is their continual participation in maintenance. Direct lines of communication between members of each community and the organization managing the greywater filtration system and their implementation. In the case of Opportunity Village, this would fall onto Landscape for Humanity.

The results of this project will give insight on whether this type of greywater filtration system could be implemented in other transitional housing communities. And as mentioned before, CSS sites are in need of being able to process greywater on site. If successful, a similar greywater filtration system could be employed at other sites. If the water is able to be treated up to a certain standard, it may be possible to distribute the water on site and prevent the need to for trucking out any greywater, which would cut down on annual operating costs.

FIGURE 6.2 GREYWATER FILTRATION SYSTEM

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INTO SEWER

FIGURE 6.3a



Source: Photo taken by author

FIGURE 6.3b



Source: Photo taken by author

The greywater planter boxes are currently under construction at OVE. In this image you can see both surge tanks and the first planter that will filter greywater as it moves through the system. The water is pumped into the large holding tank and then gravity fed through the subsequent planter boxes.

This image shows the second and third (last) planter boxes. The boxes are arranged along the porch of the wash house at opportunity village to allow for the pvc pipes that will connect each box to be hidden underneath as best as possible.

FIGURE 6.4a



Source: Photo taken by author

FIGURE 6.4b



ource: Photo taken by autho

Here is a finished planter box that was designed from ideas generated from a design charrette held with members of Opportunity Village in Fall 2019. Giant Sequoias donated from the City of Eugene are growing in the planter and will be sold locally upon maturity, potentially in Fall 2021. The trees were planted in Spring 2020.

This planter box is constructed from cedar planks and is less durable than the planter box above which is constructed from roofing material. Durability, appearance and ease of construction are important considerations in this project. The longevity of each box depends on materials and construction and should be a major deciding factor for their construction.

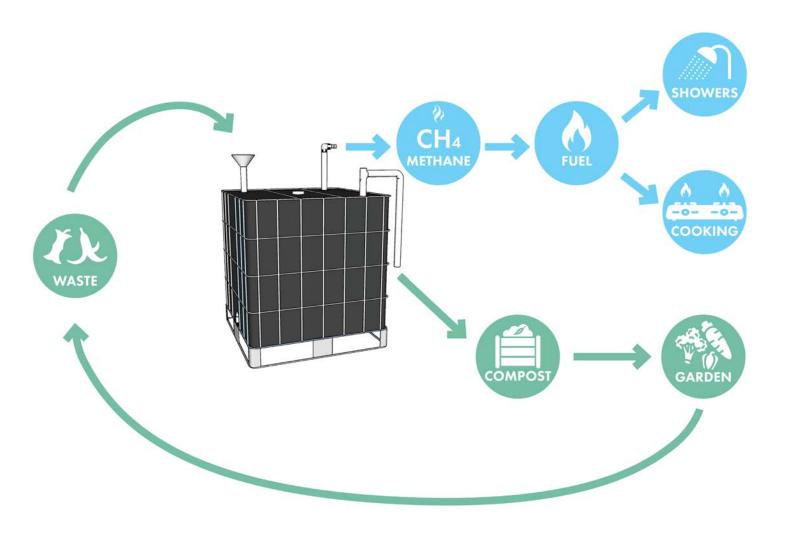
6.2 ANAEROBIC WASTE DIGESTERS

One technology that shows potential to provide needed resources on transitional housing communities are anaerobic waste digesters. These simple systems can be easy constructed from IBC totes, which can be found throughout the world. They essentially convert food and gardening waste into compost tea and methane. The methane can be collected and harnessed to heat things like stoves, grills and even used to heat water for showers. Methane can also be easily compressed into propane tanks where the gas could be connected to a grill, or anything that uses compressed propane as fuel. Methane is a natural by product that comes from decomposing waste and is the dominate gas found in natural gas that is used to heat homes and water heaters. It is also one of the most harmful greenhouse gases, around 25x stronger than carbon dioxide. Rather than releasing methane into the atmosphere, these systems harness and burn the gas which produces carbon dioxide as a byproduct.

The other byproduct, compost tea, can be used, of course, as compost for gardens to grow food. The waste from gardening and food production then goes back into the waste digester creating a self-contained system of processing waste and producing byproducts that can be used to benefit the community. The best things about these systems is their simplicity and ease to construct. They are more commonly seen in developing nations where resources are scarce and there is a need for fuel for cooking. The technology is not new, and it is perfectly safe to construct and operate making it a great technology that can provide much need resources for transitional housing communities.

One question about these systems is are they able to be implemented in a way that is aesthetically pleasing? Anaerobic digesters have an industrial and often crude

FIGURE 6.5 ANAEROBIC WASTE DIGESTER



appearance which may not contribute to an aesthetic that would be appealing for both residents and the surrounding communities in which transitional housing communities are nestled. These systems have the potential to not only offer valuable resources, but they could be retrofitted to include public art and add greenspace to communities that can benefit from layering benefits in ways that are inexpensive and efficient spatially and technologically. Similarly to the greywater planter boxes, which are also made from IBC totes and very crude in appearance, these systems could be designed in a way that adds vibrancy, color, light and greenspace for a low cost, layering benefits of each system for the community.

What follows is a series of anaerobic waste digester prototypes that do just that. They layer efficient waste processing, methane and compost production, public art and greenspace together in one package. There are also examples of what these systems might look like if the methane is used as a fuel to heat water for showers, something that has been expressed from Community Supported Shelters as an important resource lacking in current communities.

FIGURE 6.6 ANAEROBIC WASTE DIGESTER PROTOTYPE



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PROTOTYPE A

Simple planters that hook straight on to the cage of ibc totes are easy ways to add plants that make these boxes much more attractive. Vegetables, herbs or ornamentals could be grown and any waste generated from the plants could go straight into the digester to produce compost that can be used to feed the plants. Synergy!



PROTOTYPE B

This prototype demonstrates what a mural might look like added to the digester. Local artists could be hired to add color, vibrancy and improve the aesthetic appeal of the IBC tote and the community. There is potential to use public art to create a unique identity for each community which has proven benefits to civic engagement and acceptance from the surrounding community. Viola!



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PROTOTYPE C

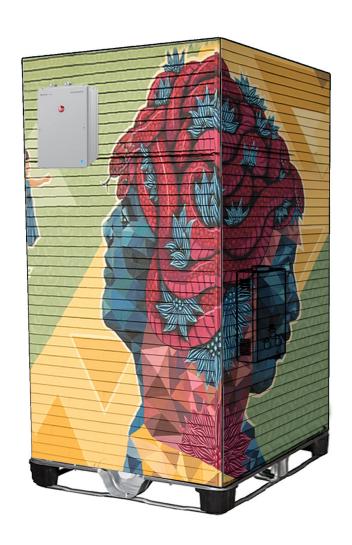
This shower is constructed from two IBC totes stacked on top of one another. Water is heated using an on-demand water heater, as one might find in an RV. This prototype is designed with planter boxes that hook to the cage of the IBC Totes and can be placed anywhere on the shower. In this case there is bamboo being grown from the bottom up.



PROTOTYPE D

Methane produced from the Anaerobic Waste Digester can be used to power the water heater instead of natural gas or propane.

This prototype has Boston lvy (Parthenocissus tricuspidata) growing from the top down creating a whimsical cascading effect.



PROTOTYPE E

This design, like the methane digester above, incorporates a mural, a visual display of public art for the transitional housing community and surrounding neighbors. An on demand water heater is mounted to the back or side of the shower that could be powered from methane produced from the waste digester.

FIGURE 6.11 IBC TOTE SHOWER PROTOTYPE



PROTOTYPE F

In this prototype, tomatoes are grown from the planter boxes attached to the cage of the IBC tote shower. Compost produced from the waste digester could be used to feed vegetables and organic waste from the vegetables could be used to feed the digester.

FIGURE 6.12 IBC TOTE SHOWER PROTOTYPE



PROTOTYPE G

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Shown here is an IBC tote shower with plants growing from the top, a methane collection bag and an anaerobic waste digester with public art. Methane is collected in the bag as waste decomposes. It can then be connected directly to a water heater or stove to be burned as a fuel source. The system is simple, inexpensive and well established, proven to be safe and effective. Much needed resources combined with public art and greenspace give a wide range of benefits coming from this system.

FIGURE 6.13 OPPORTUNITY VILLAGE EUGENE - EUGENE, OREGON



In this rendering, one gets the sense of what these systems might look like installed on a site, in this case at Opportunity Village of Eugene. They fit well with the creative aesthetic already present at OVE where tiny homes are the main style of dwelling unit. Opportunity Village also has the advantage of having access to municipal water making the IBC shower unit even more viable.

FIGURE 6.14 OPPORTUNITY VILLAGE EUGENE - EUGENE, OREGON

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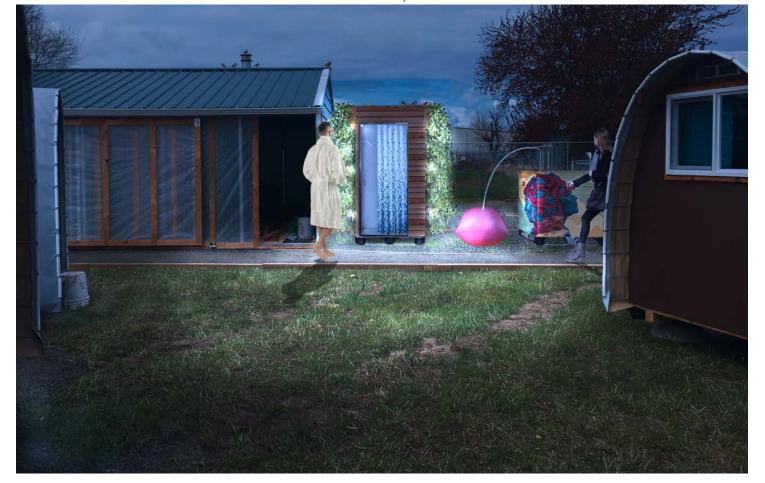
This night rendering gives an idea of how incorporating lights adds another interesting dimension to these systems. Light can add safety, perceived and actual, to a site and also create an interesting ambiance for the community. If powered by solar, lights could be added to any system in basically any scenario.

FIGURE 6.15 CSS SAFE SPOT COMMUNITY - EUGENE, OREGON



This rending shows how the IBC shower and anaerobic digester could be employed at a CSS Safe Spot Community. These communities are clean, tidy and secure and offer a great option for people experiencing homelessness. However, they lack showers and greenspace in many of the sites and overall the sites lack color and vibrancy. Their lack of water and sanitation resources, though, could be an opportunity to bypass wasteful systems currently in place in America.

FIGURE 6.16 CSS SAFE SPOT COMMUNITY - EUGENE, OREGON



Do we need to treat our toilet water to drinking water standards and then use high large amounts of energy to then treat it again after it goes down the drain? Do we need to use fossil fuels that have huge environmental impacts to heat stoves and water for showers? The answer is no and these communities, with the right partnerships, could be in a place to implement innovative systems such as these IBC tote showers and anaerobic waste digesters at a low cost.

FIGURE 6.17 NIGHTINGALE SUPPORTED SHELTER - EUGENE, OR



This rending shows what these systems might look like on a site like Nightingale, which is located in a church parking lot in Eugene. One major benefit of these systems is that they can be lifted with a simple pallet jack, and this is especially true in a parking lot with a smooth surface. One major challenge, however, would be the need fro bringing in water on site. It's certainly possible, but at a cost.

FIGURE 6.18 NIGHTINGALE SUPPORTED SHELTER - EUGENE, OR



When lights are added to these systems, they could really add a lot to such a small space. Given the confined nature of Nightingale, some simple led lights could really transform a space, adding vibrancy, increased safety and color to the site.

6.3 DESIGN RECOMMENDATIONS

Given the importance of water and sanitation resources and it's implications for the houseless community and the larger community, this an important area that's needs consideration when implementing more transitional housing communities. Lack of access to water and sanitation resources has clear implications for physical health, but also creates greater vulnerability in other aspects for the unhoused. Legality regarding open urination and defecation and increased vulnerability of turning your back to use the restroom in public are important considerations that could result in increased police interaction, as well as increased vulnerability of being taken advantage of from other houseless individuals. Water and sanitation, then, must be a key aspects of transitional housing communities. Also, currently some transitional housing communities lack access to regular water supply and rely on porta-potties and portable sinks as their main sources for sanitation resources. And given the experiences with porta-potties in Portland as mentioned earlier in the paper, these may not be the ideal choice when considering ways to help integrate transitional housing communities into the urban fabric.

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- Integrate innovative wastewater treatment on site
 - o Flow through planter boxes
 - Adds greenspace, filters pollutants
 - Methane collection infrastructure to use for cooking and heating water for showers
 - Off gassing from food waste may be viable methane sources, especially if transitional housing is paired with community gardens
 - Incorporating composting toilets
 - Potential to collect methane from off-gassing
 - o Efficient ways to use and heat water for showers
 - Especially when water is not provided on site

CONCLUSION

People experiencing homelessness find themselves caught in systems of criminalization and incarceration. The right to exist without a foundation is seen as deviant behavior from society and has resulted in the criminalization of residing in public spaces. However, with nowhere to physically reside, people experiencing homelessness find themselves in a catch-22, resulting in increased police interaction among the unhoused. Interaction can look like getting a ticket, going to jail, or having your camp destroyed and being stripped of all of your personal belongings, a truly dehumanizing and destabilizing event. For BIPOC individuals who are already at risk of increased police interaction and being caught in systems of incarceration, the threat from police pose an even greater risk when living unhoused. Getting a criminal record has been shown to make transitioning out of homelessness and into permanent housing incredibly difficult. For public housing options, such as HUD, people with criminal records may not even qualify for housing, perpetuating cycles of homelessness and incarceration.

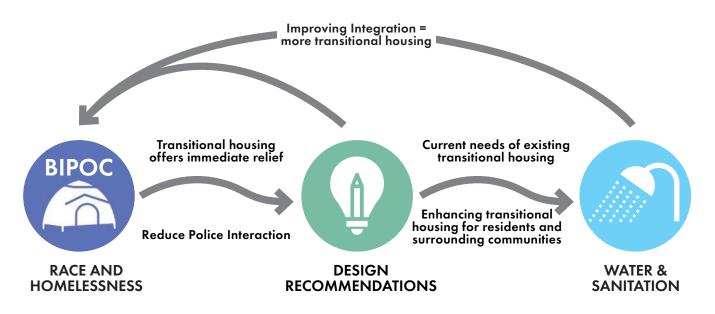
Transitional housing exists as a bottom-up approach to housing that stands to create more options for a rising number of people experiencing homelessness. Traditional shelters only go so far and consist largely of a one-size fits all approach to emergency housing. A one size fits all approach ignores the fact that situations the houseless find themselves in are as nuanced and complicated as the individuals themselves. Transitional housing offers a way to create a unique culture and community of people who are all working towards a shared goal, permanent housing. This approach increases individual agency in helping to craft their own culture and live with security and dignity.

While transitional housing is still a fringe style of housing, it is gaining popularity, as can be seen throughout Eugene, Oregon where more small transitional housing communities

are popping up. There are specific design recommendations found in this thesis that can aid in the integration of these communities into the urban fabric which can improve the quality of life for residents and improve their acceptance from surrounding neighbors. Adding public art, lighting, signage, and greenspace can all play a part in making these communities more enjoyable for residents, increasing their potential of being accepted into our current structure of housing in urban spaces. Additionally, if these communities are designed in conjunction with community gardens, there could be even greater benefits. Examples of which would be greater interaction with surrounding community members, greater food security and demonstrate that many people experiencing homelessness are not a drain on society, but rather are motivated individuals who have found themselves in a hard situation. It would help transform the visual narrative of what it means to be without housing.

Water and sanitation issues are still a practical hurdle for transitional housing communities springing up in Eugene. There is a need for smart use of water and greywater on site, showers, and energy production in innovative ways given the limited availability of these resources. Through innovative water and sanitation technologies, it is possible to provide these resources in a sustainable and cost effective way. However, these technologies, such as anaerobic waste digesters, are often crude in appearance as they are commonly constructed from recycled industrial containers and materials. Through incorporating plants, lighting, and public art into their design, one can layer multiple functions into one relatively simple design intervention and start to craft a unique identity for each community. Not only are you providing needed resources for residents of the community, but you are applying recommendations from the Center for Active Design that have proven to increase things like civic engagement and improve perception of public space throughout cities.

Ultimately, people experiencing homelessness deserve the right to exist and they deserve dignity and respect. Transitional housing will not "solve" the homelessness crisis our country finds itself in. However, it offers more immediate relief while longer term structural solutions are sought. For people experiencing homelessness, and especially BIPOC individuals who are disproportionately represented, transitional housing offers a way to reduce police interaction affords people the chance to take a breath while they make moves to transition into permanent housing once again. It offers them a place to store their belongings securely and have a community of people who find themselves in a similar situation. It boldly states that people have a right to exist and deserve an opportunity to live their lives without fear of where they might sleep at night or fear of being harassed by police. Transitional housing is a force of resistance against current neoliberal structures that criminalize homelessness and view people experiencing homelessness as outsiders of society.



References

- Center for Active Design. (2018). Assembly: Civic Design Guidelines. New York, NY.
- Capone, Drew, Anna Ferguson, Matthew Gribble, and Joe Brown. "Open Defecation Sites, Unmet Sanitation Needs, and Potential Sanitary Risks in Atlanta, Georgia, 2017–2018." American Journal of Public Health 108, no. 9 (2018): 1238–40. https://doi.org/10.2105/ajph.2018.304531.
- Capone, Drew, Oliver Cumming, Dennis Nichols, and Joe Brown. "Water and Sanitation in Urban America, 2017–2019." American Journal of Public Health 110, no. 10 (2020): 1567-572. doi:10.2105/ajph.2020.305833.
- Capone, Drew, Anna Ferguson, Matthew Gribble, and Joe Brown. "Open Defecation Sites, Unmet Sanitation Needs, and Potential Sanitary Risks in Atlanta, Georgia, 2017–2018." American Journal of Public Health 108, no. 9 (2018): 1238–40. https://doi.org/10.2105/ajph.2018.304531.
- Comstock, Nicole, L. Miriam Dickinson, Julie A. Marshall, Mah-J. Soobader, Mark S. Turbin, Michael Buchenau, and Jill S. Litt. "Neighborhood Attachment and Its Correlates: Exploring Neighborhood Conditions, Collective Efficacy, and Gardening." *Journal of Environmental Psychology* 30, no. 4 (2010): 435–42. https://doi.org/10.1016/j.jenvp.2010.05.001.
- Goodling, Erin. "Intersecting Hazards, Intersectional Identities: A Baseline Critical Environmental Justice Analysis of US Homelessness." Environment and Planning E: Nature and Space 3, no. 3 (2019): 833–56. https://doi.org/10.1177/2514848619892433.

- Harbarger, M. (2019, April 17). "Kenton tiny home village for homeless women gets permanent home." OregonLive. https://www.oregonlive.com/news/2019/04/kenton-tiny-home village-for-homeless-women-gets-permanent-home.html.
- Herring, C., Yarbrough, D., & Alatorre, L. M. (2019). "Pervasive Penalty: How the Criminalization of Poverty Perpetuates Homelessness." Social Problems. https://doi.org/10.1093/socpro/spz004
- Jones, Marian Moser. 2016. "Does Race Matter in Addressing Homelessness? A Review of the Literature: Race and Homelessness." World Medical & Health Policy 8 (2): 139–56. https://doi.org/10.1002/wmh3.189.
- "Kenton's Women's Village." Catholic Charities of Oregon, December 6, 2020.

 https://www.catholiccharitiesoregon.org/services/housing-services/kenton-womens-village/.
- Lerner, Jonathan. "Home Away From No Home." Landscape Architecture

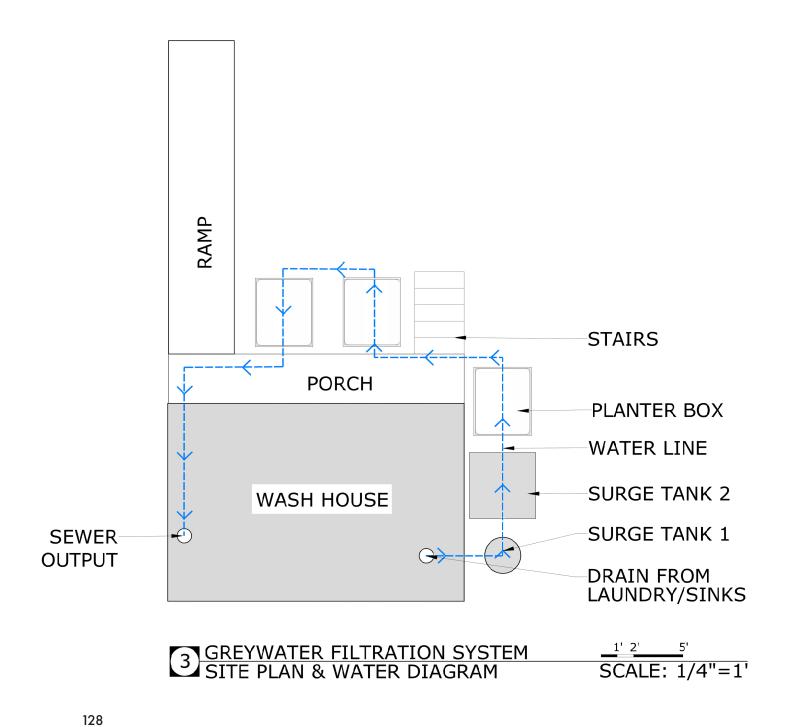
 Magazine, September 3, 2019. https://landscapearchitecturemagazine.

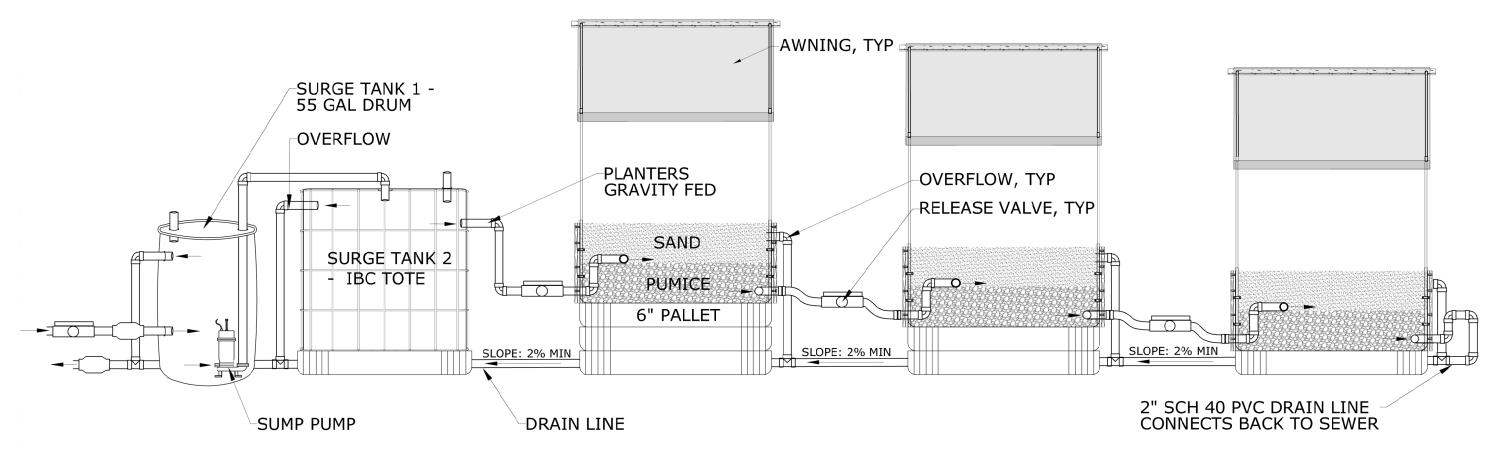
 org/2019/08/27/home-away-from-no-home/.
- Maryman, Brice. "Public Space, No Exceptions," March 2, 2020. https://landscapearchitecturemagazine.org/2020/02/04/public-space-no-exceptions/.
- Marcus, Anthony. "Whose Tangle Is It Anyway? The African-American Family, Poverty and United States Kinship." The Australian Journal of Anthropology 16, no. 1 (2005): 47–61. https://doi.org/10.1111/j.1835-9310.2005.tb00109.x.

- Milburn, Norweeta G., Philip Batterham, George Ayala, Eric Rice, Rosa Solorio, Kate Desmond, Lynwood Lord, Javier Iribarren, and Mary Jane Rotheram-Borus. 2010. "Discrimination and Mental Health Problems Among Homeless Minority Young People." Public Health Reports 125 (1): 61–67.
- Nellis, Ashley. "The Color of Justice: Racial and Ethnic Disparity in State Prisons," January 10,2019. https://www.sentencingproject.org/publications/color-of-justice-racial-and-ethnic-disparity-in-state-prisons/.
- "Providing for the Unhoused: A Review of Transitional Housing Strategies in Eugene." (2015, October). Retrieved December 6, 2020, from https://www.eugene-or.gov/DocumentCenter/View/31978/University-of-Oregon-Rest-Stop-and-Opportunity Village-Report?bidId=
- Shapiro, Ari. "Why Some Homeless Choose The Streets Over Shelters." NPR. Retrieved December 6, 2012. https://www.npr.org/2012/12/06/16666265/whysome-homeless-choose-the-streets-over-shelters.
- The Assembly Civic Engagement Survey. 2016. https://centerforactivedesign.org/assembly-civic-engagement-survey.
- "The 2015 Annual Homeless Assessment Report (AHAR) to Congress." Retrieved November 11, 2020, from https://www.huduser.gov/portal/sites/default/files/pdf/2015-AHAR-Part-1.pdf
- "Transitional Housing." Retrieved December 6, 2020. https://www.homelesshub.ca/solutions/housing-accommodation-and-supports/transitional-housing.

- United States Department of Housing and Urban Development. 2014. "The 2014 Annual Homeless Assessment Report to Congress Part 1-Point-in-Time Estimates of Homelessness" [Online]. https://www.hudexchange.info/resources/documents/2014-AHAR-Part1.pdf. Accessed Nov 8, 2020.
- U.S. Bureau of Justice Statistics. 2018. "Correctional Populations in the United States, 2016." Washington, DC: U.S. Department of Justice Bulletin.
- Weisz, Carolyn, and Diane M. Quinn. 2018. "Stigmatized Identities, Psychological Distress, and Physical Health: Intersections of Homelessness and Race." Stigma and Health 3 (3): 229–40. https://doi.org/10.1037/sah0000093.

APPENDIX





GREYWATER FILTRATION SYSTEM

6" 1' 2' 3'

ELEVATION

SCALE: 1/2"=1'

